Croonian Lectures
ON
POINTS CONNECTED WITH DIABETES.

Delivered at the Royal College of Physicians,

BY F. W. PAVY, M.D., F.R.S.

LECTURE III.—PART V. (CONCLUDED.)

SUCH is the argument which leads us up to the consideration of glycosuria as a phenomenon of diabetes mellitus. I conceive it may be assumed that what is true for diabetes artificially induced may be taken as also holding good for diabetes of pathological occurrence. There is no reason to believe that the source of the glycosuria in the two instances is different, and it appears to me that support to this conclusion is given by the state in which the tongue is found in the most aggravated cases of the disease. Frequently, for instance, it may be noticed that the tongue presents an exceedingly injected appearance. Its bright red colour points to the existence of a hyperæmic state—the state that would be occasioned by a vaso-motor paralysis. The idea suggests itself from the aspect presented that the blood is flowing through the organ without being properly deprived of its arterial character. Now, just such a condition existing in connexion with the chylo-poietic organs would suffice, as I have furnished evidence to show, to give rise to glycosuria. That the tongue, belonging as it does to the digestive system and the chylo-poietic organs, should be affected alike is nothing for us to be unprepared for. It is in the worst kind of case, as I have said, that the tongue presents the appearance indicated, and the tongue being thus implicated may be taken as simply expressing the existence of a wider extent of vaso-motor paralysis than where no such appearance is noticed.

The problem remaining to be solved is the nature and seat of the lesion of the nervous system, which forms the primary morbid condition in diabetes. There are various considerations connected with the disease which point to the brain as being the most likely part from which the morbid influence starts. We know that by operating upon the medulla oblongata and the sympathetic system diabetes may be artificially induced; but it is not necessary that attention should be confined to these structures, for it is also known that in them only resides a part of the vaso-motor system. The observations of Eulenberg, which are corroborated by those of Brown-Séquard, have shown that the state of the arteries is affected by lesion of certain parts of the grey matter of the brain, and it is suggested that the vaso-motor nerves distributed in the sympathetic, besides being connected with the spinal cord and the medulla oblongata, pass up to spots at the surface of the brain, which stand in the position of cerebral vaso-motor centres.

I certainly incline to the opinion that some kind of textural change in the brain stands at the foundation of diabetes, and there are two ways in which the effect may be produced. The vaso-motor system exerts an influence upon the arteries, which gives them their *tonus*, or keeps them in a certain state of contraction. The effect of destruction of the centres or tracts is to lead to arterial dilatation, by causing direct paralysis of the muscular coat; whilst that of irritation is the converse. These results are in harmony with what occurs under similar circumstances in connexion with the cerebro-spinal system, and are therefore intelligible enough to us. Arterial dilatation, however, may be induced in another way—viz., by an action of the cerebro-spinal system controlling or inhibiting the activity of the vaso-motor system. Reference to what may be perceived in connexion with the salivary glands will supply us with an illustration of the occurrence of this mode of dilatation.

Whilst the glands are in a state of quiescence, the arteries are maintained in a comparatively contracted condition by the influence of the vaso-motor nerves they receive from the sympathetic. Now common observation shows us that a flow of saliva, which means an antecedent dilatation of the arteries, may be excited by a stimulus applied to the surface of the tongue, and so influencing the extremities of the lingual gustatory nerve, and even by an impression starting from the brain and originating in a passing thought about food. The explanation which physiological science gives of this phenomenon is that a stimulus is transmitted from the cerebro-spinal system which produces an inhibitory action upon vaso-motor centres or nerves that relaxes the muscular coat of the arteries, and thus permits dilatation to occur. This may be considered to constitute an active form of vaso-dilatation, in contradistinction to that arising from paralysis induced by operations upon the sympathetic, which lead to a simple removal of vaso-motor influence.

There being these two modes of action by which vaso-dilatation may be brought about, it may happen that diabetes may arise either from a lesion affecting and involving a loss of power in vaso-motor centres, or a lesion in some part or other of the cerebro-spinal system leading to an inhibitory influence being exerted upon them.

Dr. Dickinson states that he has recognised certain vascular and perivascular changes in the brains of those who have died of diabetes. My colleagues, Drs. Frederick Taylor and Goodhart, however, in an article "On the Nervous System in Diabetes," published in the Guy's Hospital Reports for 1877, have disputed the validity of his conclusions. The point in question is out of my own line of investigation, and I cannot therefore pretend to offer an opinion upon it; but this much I may say, that I hope in the interests of science Dr. Dickinson will continue and extend the inquiries he has begun, for I am sure it will be admitted that he possesses qualifications which especially fit him for such work. The ground I consider has been prepared by physiology, and we must now look for the fruits derivable from the assistance of pathology.

I may state, and I desire that the statement should only stand for what it may appear to be worth, that my clinical experience has led me to form the idea that diabetes presents an alliance as regards the character of its progress to locomotor ataxia and progressive muscular atrophy. We have in each of the cases different manifestations of disordered nerve-action to deal with; but, as in the diseases named, diabetes, certainly as it occurs among young subjects, is a truly progressive affection. For instance, when such a subject falls under observation during the early period of the disease, it will be found that by dietetic management alone the urine may be deprived of sugar and the health restored. Later on sugar reappears notwithstanding the most rigorous dietetic management be persistently adopted. It may happen now that the administration of opium, morphia, or codeia will again remove the sugar. Again, however, the urine becomes saccharine, and the saccharine character gradually augments. With this the patient notices that he is losing ground in general health. He experiences more or less of a return of the old symptoms which troubled him at the outset before his eyes were opened to the nature of his complaint. No impression now can be made upon the disease as formerly, and it appears to me we can only assume that the pathological condition which is at the bottom of it must have gradually advanced. The ordinary duration in these progressive cases, I think I may say, is about two years. Sometimes it is much shorter, sometimes longer; and, as in locomotor ataxia, the condition may advance to a certain point, and there remain stationary for a shorter or longer while, the patient during this time being able by strict attention to treatment to keep himself in a fair state of health. These remarks do not apply to the disease in elderly persons, for here, if the proper management be pursued, the tendency is towards progress in a right direction, if not even recovery, instead of towards an unfavourable issue.

This brings to a conclusion the remarks which you, Mr. President, by the honour you conferred upon me in appointing me to deliver these lectures, have afforded me the opportunity of making upon a subject which has always been of much interest to me. Whatever may prove to be the final issue of the investigation, the views I have expressed are those which, after a close attention to the subject for now upwards of twenty years, I have been led, rightly or wrongly, to frame.

Clinical Lecture
ON
A CASE OF ACUTE MYELITIS, AND A CASE OF ADULT SPINAL PARALYSIS.

Delivered at the Liverpool Royal Infirmary, March 15, 1878.

BY T. R. GLYNN, M.B. LOND.,
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GENTLEMEN,—There have recently been several cases of acute disease of the spinal cord in my wards. I have selected two of these—a case of acute myelitis, and a case of adult spinal paralysis,—which we will, if you please, consider together, in order that the characteristics of each may, by contrast, be the more distinct. They are striking examples of very different affections of the cord, but in each the lesion was probably of an acute inflammatory nature; in each there was extensive motor paralysis, and this to the superficial observer would be the prominent symptom; but in every other particular—in onset, progress, and termination—the two cases offer a remarkable contrast.

The first patient I shall refer to was admitted into the hospital twelve months ago, but he was so long under my care that most of you must have seen and will recollect him. I avail myself of notes by my former clinical clerk, Mr. Clegg.

James H——, aged twenty-eight, railway porter, was admitted into the Royal Infirmary on Jan. 23rd, 1877. He stated that he worked under cover; that he had not "got wet"; was employed in lifting heavy goods; did not recollect hurting or straining himself in any way. His health had been uninterruptedly good; never had syphilis. Married six years; family history good. Three days before admission he was seized with severe griping pain in the bowels while at work. He thought "it was a touch of bowel complaint," and remained at work for an hour or two and then walked home. He took some castor oil, and applied mustard poultices to his abdomen. At home he felt a sensation of "pins and needles" in his legs. During the night, his bowels being disturbed by the oil, he wished to get up, but found his left leg benumbed and useless; however, he managed to hobble out of bed. When he returned to it he wrapped his leg up, as it felt cold, and again fell asleep. On attempting to rise in the morning he found both legs benumbed and powerless. He passed no water all day, and suffered much from a feeling of distension about the rectum. A medical man drew off his urine in the evening, and an enema was administered.

He was an exceptionally well-made, handsome young man, looked somewhat pale, but was very cheerful, and thought little of his illness. He had no pain of any kind; pupils normal; skin cool; temperature 99° F.; pulse strong, 88; respiration 20; abdomen prominent, expands slightly after the chest. The loss of the motor power of the legs was complete; he felt the point of a needle slightly on the feet, not on the legs; the loss of sensation extended as high as the crest of the ilia in front and tenth dorsal vertebra behind; no reflex action on pricking feet; no spasm; the strongest faradaic current only just felt on the feet excited only very slight muscular contraction; no tenderness; no pain on the application of hot sponge over any vertebræ; tongue moist and clean; appetite excellent; urine ran away into a urinal was very ammoniacal, muco-purulent, febrile in colour, sp. gr. 1030, contained neither albumen nor sugar; respiratory and heart-sounds normal. Ordered a purgative; urine to be drawn off night and morning, and ten grains of iodide of potassium every three hours.

The next day (Jan. 24th) we learned that he had passed an excellent night, that about twenty ounces of urine had been drawn off night and morning; it was ammoniacal and muco-purulent. At 2 P.M. he had a severe rigor; after it twenty ounces of high-coloured urine, sp. gr. 1030, were drawn off; this urine became very brown on the addition of nitric acid. He felt sick, and vomited during the day; in the evening, twenty ounces of sooty-coloured urine were removed; the appearance of the urine was due to the presence of blood, and an enema which was administered was followed by the discharge of matter like Condy's fluid, due to blood also.

Jan. 25th.—A restless night, as he suffered from a feeling of distension about the bladder. Two pints of dark-reddish, coffee-coloured fluid were drawn off; specific gravity 1030, in which multitudes of blood-globules were found. In the evening the same quantity of fluid, of a bright-red colour, was removed. A little fæcal matter, passed involuntarily, contained much bloody mucus. A great diference was noted between the temperature in the axilla and perineum; in the morning it was in the former 99° F., in the latter 101·8° F.; in the evening, in the axilla 100°, in perineo 102°; pulse 108; respiration 20. Condition of legs the same; no complaint of pain. Ordered hypodermic injections of ergotine, and bladder to be washed out with water acidulated with sulphuric acid; extract of opium, one grain, to be taken at night.

26th.—Slept soundly without the opium. Temperature in axilla normal, in perineo 100·2°; pulse 100; respiration 22. Can just feel when legs are pricked, more particularly on the left side. Takes food remarkably well.—At 10 A.M. had a rigor, lasting half an hour; felt for a short time afterwards what he called a springing in his right foot, and then in his left. Urine the same in quantity, and quite as bloody. Ordered gallic acid internally, and bladder to be washed out with solution of ergotine.

27th.—The "springing" sensations continue, making the feet start. Temperature, right axilla, 100°, left axilla 100°, perineum 100·4°. Pulse 92; respiration 20; urine, seventy ounces in twenty-four hours, unaltered in character. Strong faradaic current produced more marked contraction of the muscles than formerly, more particularly of the left side. Continuous current of forty cells produced the same effect, neither more nor less marked; a current of twenty-four cells did not excite the muscles at all. Urine unaltered. Ordered a dose of turpentine.

28th.—Starting of legs more marked; awoke him occasionally at night.

I may now summarise the chief features of the case. The temperature in the axilla and perineum became similar for the first time on Feb. 1st, when in both situations it was 99°. The fluid drawn from the bladder preserved its character week after week, in spite of the administration of various stypics, and the constant washing out of the bladder with acidulated and astringent solutions. Sometimes clots were passed and long blood-casts of the urethra; the sediment, pus, mucus, and gritty material increased in quantity. Bedsores, notwithstanding every care, began to appear on Feb. 4th, but did not for a time assume serious proportions. He became very pale and thin, but took his food well, and remained wonderfully cheerful and sanguine as to his recovery. The rigors were repeated at long intervals, and the temperature after one or two days reaching 105°, he was wrapped in a blanket wrung out of cold water. The temperature after the first rigor always rose a little towards night, and in March symptoms of hectic fever became marked, the temperature being 103° at night, and from 98° to 100° in the morning, with thirst, diarrhœa, sweating, &c. The involuntary startings of the legs, especially at night, continued for some weeks. Reflex movements on pinching the toes, pricking, &c., were excited for the first time early in February; by the end of March they could not be excited; the legs at this time became gradually rigid, flexed at the knees, and drawn up. Early in March the urine lost its dark colour, but was terribly offensive, and a week or two later it was evident that the rectum and bladder communicated, as fluid was passed per rectum similar to that usually drawn from the bladder, and no urine was found in the bladder. The diarrhœa then became constant; the appetite failed entirely. He complained much of pain about the body and limbs, and cried out when touched. Owing to this, and to the position his legs had assumed, it was difficult to move him. The bedsores spread rapidly. He existed till May 20th, when he rather suddenly became comatose, and died.

Post-mortem examination.—Spinal cord: The membranes were healthy, and at first sight there was nothing unnatural in the appearance of the cord. On closer examination, however, a portion of it, about two inches in extent in the lower dorsal region, was found to be somewhat soft. Here, on section, the distinction between grey and white matter was ill-defined. Under the microscope, in this spot, were abundant evidences of inflammation, such as increased vas-

cularity, atrophy of nerve-elements, cells, and tubes, increase of connective-tissue elements, &c. Above and below the softened area there were no signs of acute mischief, but there were histological changes to which I would particularly direct your attention. On looking at these transverse sections of the hardened cord from parts above the inflamed spot, you will distinctly see a whitish wedge-shaped band in the situation of the posterior median columns, the base external, and divided by the posterior median fissure; it becomes narrower as it ascends, and is lost in the medulla oblongata. There is no such appearance in the cord below the softened area. On holding these sections, stained and cleared, up to the light, the wedge-shaped band looks more transparent than the rest of the cord. Under the microscope the most important changes in it are, briefly, increased thickness of the neuroglia, and almost complete absence of axis cylinders. This curious appearance is due to the ascending degeneration of the posterior columns described by Türck, Bouchard, Charcot, and others. It is associated with a descending degeneration of the lateral columns; but this change is nothing like so readily recognised as the former, and appears here, as it generally does, as a streak of sclerosis, near the posterior cornua externally. It is seen below but not above the softened part.—The mucous membrane of the bladder had almost entirely disappeared. The bladder was contracted, thickened, and its inner surface eroded. Several abscesses were found in its vicinity, communicating with it by fistulous passages, and there was an aperture between the lower part of the bladder and the rectum. The mucous lining of the rectum was also ulcerated.

For the particulars of my next case I am indebted to my clinical clerk, Mr. Denson. This patient has only just left the hospital, so that you all have had an opportunity of seeing him.

W. K——, aged thirty-two, a ship's butcher, admitted July 24th, 1877. He was an intelligent man, and gave a clear account of his case. He stated that whilst in Valparaiso on Jan. 27th, 1877, he was suddenly taken ill, with great prostration, high fever, pain in the back and limbs, and vomiting. After suffering in this way four days he felt a tingling and pricking sensation, accompanied with numbness and stiffness in the fingers and toes. He soon was unable to move his hands or feet; the paralysis extended, and in thirteen days was complete, so that he was perfectly helpless, being only able to move his head. The facial muscles appear to have escaped. There was no respiratory trouble, no difficulty in swallowing, no implication of the bladder or rectum. He moreover lost all feeling in his legs and arms. His mind remained unaffected. At the end of fourteen days he was removed to the British Navy Hospital. The fever was so high in the hospital that he was for several days wrapped in cold wet sheets three or four times in twenty-four hours. The vomiting ceased, after having continued about a fortnight, and the fever gradually left him, but he remained in the condition described, and suffering much from severe cramp-like pain in the limbs, for which hypodermic injections of morphia were given him. Iodide of potassium was administered. He was galvanised and faradised, but he did not feel the strongest currents, nor did they affect his muscles. He recovered sensation at the end of two months, and soon after muscular power began to return in the hips and shoulders. He was in the hospital five months, and then left for Liverpool. During the voyage the pains continued, but he regained more muscular power. Immediately previous to his illness he had not been exposed to cold or wet. He had ridden ninety miles on horseback two days before, but was in the habit of riding long distances. He had rheumatic fever six years, and syphilis eight years, previously. His family history was good. He was a healthy-looking, dark-complexioned man. Lies in bed with the shoulders thrust forward as if by the weight of his body. Sensation perfect everywhere. The hand was dropped, and could not be moved at wrist; the fingers were partly extended; he could just slightly flex the second and third fingers of both hands; could raise both hands to the head; this he did slowly and awkwardly. The arms were small and soft, the extensors were most wasted, the pectorals, deltoid, and biceps in the best condition. He could not move the feet or toes. After bending the knees, he drew his feet slowly up in the bed, but could hardly get them down again. When the leg was bent he could lift the heel off the bed, probably by action of psoas and iliacus. The extensors of the thigh and the hamstrings were very small and soft. He could abduct, adduct, and rotate the thigh; the glutei and adductors appeared to be in a fair condition. The muscles of the back were wasted, particularly the rhomboidei. Respiratory movements thoracic; the lower part of the abdomen sank in during inspiration. He suffered from constant cramp-like pain in the limbs, aggravated towards night. Pulse small, 96; temperature, in both axillæ similar, 98·4° F., night and morning. Tongue clean, appetite good. Urine rather small in quantity, normal. No bladder or rectal trouble of any kind. Ordered hypodermic injection of morphia (a quarter of a grain), iodide and bromide of potassium, and to be galvanised daily.

I shall give you only a brief history of the progress of the case. The pain from which W. K—— had so long suffered continued, but became altered in character, and was described as burning and confined to the hands and feet. He used to sit up in bed unless under the influence of morphia, rocking himself to and fro, in what appeared to be the greatest suffering. The pain increased towards evening. The hypodermic injection of morphia, one-third to one-half of a grain, was the only agent that afforded relief. Bromides, gelseminum, croton chloral, belladonna all failed. The application of the constant or interrupted currents was followed by excessive pain, and their use was, therefore, for the time abandoned. For several weeks there was hyperæsthesia of the hands and arms. His limbs were regularly rubbed and shampooed. He continued to recover muscular power, the muscles about the shoulders, elbows, and hips gaining additional strength, and growing fuller. By the middle of September he was able to flex all his fingers, but he could not adduct or abduct the thumbs; the hands for a time grew decidedly more hollow and thinner, and the thenar and hypothenar eminences flatter. In October he commenced to crawl about the ward on his hands and knees. The burning pains about this time moderated, and left him a week or two afterwards. In November he was able to walk with assistance. By December he could hold a stick, and the muscles of the thumb had gained in strength and size. He could not, however, extend or flex the feet, or move the toes. When he walked his feet swung weakly about, the heel being put to the ground first, and then the sole flapping down. The extensors and gastrocnemii remained atrophied; they did not contract under either current. When he left here last week for the convalescent hospital, he was able to walk without a stick, but in the peculiar manner I have described, as he has gained no more control over the feet. There is still also a want of complete power in the hands, and some atrophy of the palmar muscles, but everywhere else the improvement in the condition and appearance of the muscles has been remarkable. In October we again had recourse to the interrupted current, and continued its use for some time.

(To be concluded.)

SOME CASES OF DISLOCATION OF THE HIP AND SHOULDER JOINTS;

WITH OBSERVATIONS THEREON.

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(Concluded from p. 332.)

I WILL now relate a case of dorsal displacement from acute disease.

CASE 3. *Dislocation of the right femur from acute hip-joint disease; reduction by manipulation more than a month afterwards.*—James A——, aged fifteen years, was admitted into the London Hospital under Dr. Hughlings Jackson in April, 1875, and having continued on the medical side of the house for a few days, was transferred to the surgical on the 23rd. The notes stated that he was "quite well up to eight weeks ago; then pain came on in his legs, worse in his left, and in a month it got to the right leg, and was in both for some time. He has been in bed all the while, and has not slept for a long time on account of pain; no sweating or shivering. An anæmic, wasted boy, with dry skin and hair; no satisfactory history. Right hip: head of femur

dislocated on to dorsum ilii, and readily felt; trochanter turned forwards; limb flexed at hip, shortened and rotated inwards; adductor longus tendon very tight; mitral systolic murmur; no pulmonary disease; tongue furred; both buttocks flattened; chief pain now is in the left leg from the knee to the groin."

When transferred, the lad seemed very ill, and both legs were swollen and œdematous. The right leg was nearly three inches shorter than the other; no attempt, therefore, was made to reduce the dislocation for some days; then, when he had improved in condition, he was placed under chloroform, and one very brief trial was made, but as it failed and the leg was still swollen, it was thought advisable not to prolong the attempt. A weight and long splint were applied to keep the limb quiet. In another week the swelling had subsided, and the condition of the patient had greatly improved. He was then taken to the theatre and placed under chloroform. Manipulation was then applied by myself—flexion, circumduction outwards, and extension. The head of the bone went into the socket with a snap. There was no ulceration of the head or separation of the epiphysis; for, apart from the snap on reduction, the head of the bone could be plainly traced in its abnormal situation, perfectly smooth and round, nor was there any crepitus or grating, or any difficulty in retaining the bone in the acetabulum. A long splint was applied. On the 31st of May an abscess formed over the right hip, and was opened. On the 4th of June the limb was in good position. On movement, pain was experienced, and he was unable to flex the hip himself. It could be moved readily by the surgeon, and there was no grating. Passive movement was inapplicable, owing to pain, and fear was entertained of setting up fresh mischief, so that he was allowed to lie quietly in bed until well enough to go to the seaside. He returned at the end of the year with straight anchylosis of both hips. He was much improved in appearance, had gained flesh, and seemed quite fit for remedial measures. He was taken in at his father's request for treatment of the anchylosis. Examination under chloroform showed that the anchylosis was fibrous only. The right leg could be moved readily, but not freely, and on the left side a few adhesions gave way. Very slight force was used, and the thighs were only flexed towards the abdomen. Nevertheless, this movement occasioned some systemic disturbance and loss of appetite for a few days. On two subsequent occasions, at considerable intervals, the left hip was flexed; but after the second the limb swelled, and the knee-joint became full of serous fluid. By rest the swelling subsided; but it was clear that it would be inexpedient to do anything more for some time for the relief of the anchylosis. He was not able to bear passive movement, and Adams' operation was not expedient under the circumstances. It was thought that by rest at home he would regain strength, and that at some future time treatment might be again tried with prospect of advantage.

Remarks. — Displacement of the entire head of the femur in an early stage of hip-joint mischief is certainly not a common event. Displacement at a late period of the disease, after ulceration of the head and the rim of the acetabulum, or after separation of the epiphysis, is an ordinary occurrence. In his invaluable lectures on Rest and Pain Mr. Hilton has related several cases in which he reduced dislocations from disease. One or two were probably separations of the epiphyses, but others remain in which the head of the bone was entire. Reduction was effected in one case two months after dislocation. I could not ascertain the precise time at which the bone left the socket in my own case, and I have therefore estimated the length of time before reduction at the shortest period possible—viz., about a month; but it may have been double that length of time. The duration of the illness had only been eight weeks before admission, so that in either case the displacement occurred at an unusually early period.

With regard to dislocations of the shoulder-joint, the following case of reduction of an old displacement seems worthy of record.

CASE 4. *Subcoracoid dislocation of the right humerus of seventy-one days' standing, reduced by manipulation under chloroform.*—E. P——, twenty-four, sailor, was walking on New Year's day on the deck of the ship *Ethiopian* during his watch. The vessel was rounding Cape Horn. He misplaced his foot, and fell on to the deck, alighting on his right shoulder. He experienced great pain in the shoulder for the next few days, and it became much inflamed. The captain gave him some liniment which eased him. At the end of a fortnight it was concluded that his arm was out of joint. Thereupon the captain and two powerful men manipulated his arm, but failed to reduce the dislocation. The attempt was repeated several times without effect. On arriving in dock he made haste to come to the hospital, and was admitted under my care on the 12th of March, 1877. There was a well-marked subcoracoid displacement. Both the deformity and the loss of power in the limb rendered the patient anxious for a cure. He was taken to the theatre and placed in the recumbent position. Chloroform was administered by my house-surgeon, Mr. Needham. I then directed the trunk to be steadied, and gave the arm, placed at right angles with the body, in charge of Mr. Bunting, the dresser, requesting him to make steady extension. Standing sideways, with the transverse axis of my body parallel with the long axis of the patient's body, I then pressed my left arm into the axilla, and after extension had been practised for a short time, had the patient's arm brought down over my own, as the fulcrum of a lever of the first kind, extension being still maintained. The head of the bone slipped into the socket, but on relaxation at once slipped out again. Repetition of the procedure, with pressure of my fingers on the head, secured its return into the glenoid cavity. The reduction did not occupy more than ten minutes. The arm was bandaged to the side. For some time after the operation the patient complained of pain. A hypodermic injection relieved him. He slept well the same night. Contrary to my wish, he discharged himself in a few days to join his ship. I was afraid that he would remove the bandage, and use his arm too soon, so as to reproduce the dislocation. Hence I was anxious that the cure should have time for confirmation.

Remarks.—Dislocations of the shoulder have been reduced at periods so much longer than in this case that I record it rather on account of the method and ease of reduction. Extension at a right angle and adduction had not occupied more than three or four minutes before the head of the bone was brought to the glenoid cavity. A few days afterwards a dislocation of ten days' standing in a patient under my care was readily returned by the same kind of manipulation. On the other hand, I failed to reduce a dislocation in a female between sixty and seventy years of age at the end of three months. The humerus did not yield to moderate extension employed for a short time, and, having regard to the age of the patient, and the liability to injure the axillary artery and lay the foundation for aneurism, I did not deem it prudent to make a second attempt. The patient was very anxious to have the dislocation reduced, as she suffered pain, and was unable to use her arm. The result of the trial convinced me that I should not succeed without the employment of a degree of force transgressing the boundary of prudence at the patient's time of life. The extension, however, has benefited her considerably, for she finds that she has less pain in her shoulder, and more freedom of movement, and at this point I have advised her to "rest and be thankful."

The methods of reduction of dislocation of the shoulder-joint are more numerous than those applied to any other joint, and more subject to fashion in their selection. In recent dislocations "manipulation" of the easiest and gentlest kind is often strikingly successful and preferable to any other method. Raising the arm of the patient above his head, and extending, is also a ready method which I have employed with advantage. At one time reduction by means of the knee and reduction by means of the heel in the axilla were the favourite expedients, and when dresser at the hospital I never saw any other plan adopted except the pulleys for old cases. When the surgeon does not succeed with manipulation, and has to rely on his own exertions, extension with the heel in the axilla gives him a great accession of power, especially when he applies a jack-towel to the limb, and inserts his body into the projecting loop. By this method I readily reduced in 1874 a dislocation of six weeks' standing. In 1870 I tried it on a case of more than three months' duration without avail, but then, as the patient was advancing in years, I did not exert anything like my utmost strength for fear of doing injury to the vessels. With the foot in the axilla, even unassisted by an overlooked boot, the vessels are more likely to be damaged by being compressed against the head of the humerus than by other forms of extension. More recently two cases, out of this hospital, have come under my notice in which I effected reduction by this method.

Finsbury-square.

"SUMMER" DIARRHŒA: ITS NATURE, CAUSE, AND TREATMENT.

BY WILLIAM JOHNSTON, M.D.,
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FOR a considerable number of years past Leicester has experienced a higher rate of mortality from "summer" diarrhœa than any other of the large English towns. Some urban districts suffer less than others from the inflictions of the disease, but there are few indeed whose death-rates are not materially influenced by the mortality arising from it. For this reason—its general prevalence, and now that the epidemic of 1878 shows evidences of declension, I think it a fitting time to lay before the profession a brief summary of the results of my investigations upon the nature and cause of the disease.

About the middle of June of the present year the Sanitary Committee of the Town Council of Leicester, with a view to lessen, if possible, the fatality from diarrhœa, determined upon supplying medicine *gratis* to the artisan and poorer classes of the community. In the adoption of this measure the committee were chiefly influenced by the good accounts received from Manchester, where a similar line of action was resorted to. There are three depôts where the public can, upon application, receive medicine, the chief one being the office of the sanitary inspectors. On the 10th July I directed that the names, addresses, and ages of all the persons for whom medicine was given at this office should be entered in a book, so that I might ascertain the ages of those affected, and the localities where the disease chiefly existed. The following is an analysis of the entries from the 10th July to the 17th August, both inclusive.

Total number of persons affected, 1920.

1. Of these 1920 cases, 920 were children, 523 were women and grown-up girls, and 477 were men. These figures clearly indicate that the disease is more prevalent amongst adults than children.

2. The applications from houses where more than one was suffering from diarrhœa were 283 in number—viz.,

Houses having	7	persons suffering from the disease,		1
,,	6	,,	,,	3
,,	5	,,	,,	7
,,	4	,,	,,	19
,,	2 or 3	,,	,,	127
,,	1 child with one or both parents,			109
,,	man and wife together and alone suffering,			17

3. Houses having fathers suffering with their children, 49
,, mothers ,, ,, 90

The history of the cases included under pars. 2 and 3 was, almost without exception, that first one became affected with the disease, and that the others subsequently suffered from it.

During July and up to the 9th August I was engaged in rather lengthened microscopic examinations of the bowel discharges from infants and adults, and during this time I acquired the disease no less than five different times. Each attack readily yielded to strong doses of quinine and dilute sulphuric acid; but after a lapse of some days, and upon resuming my examinations, a fresh attack nearly always followed in from twenty-four to forty-eight hours. These personal experiences, especially when taken in conjunction with the facts mentioned above under pars. 2 and 3, have convinced me that "summer" diarrhœa is *contagious*, and that the chief vehicles of the poison in the above instances were the ejecta from the bowels of previously infected persons.

Symptoms.—It may not be out of place if I here describe the symptoms as observed in thirty-three infantile cases of the disease. The patients were usually hot, restless, and fretful in the early stages, with great thirst; and most of them were whining or screaming when they first came under my observation. The sleep was disturbed, and there was usually frequent and urgent vomiting. All, without exception, presented marked constitutional depression, as evidenced by their complete listlessness, and feeble though frequent pulse. In thirteen of the cases the infants appeared plump and well nourished, but the emaciation consequent upon twenty-four or forty-eight hours' continuance of the disease was very rapid in some instances, and the skin soon became harsh and dry. The remaining twenty cases, upon their first appearance, were all more or less emaciated and shrunken, but with the majority of them the flux had already existed for some days.

Infantile "summer" diarrhœa is a *febrile* disease. I am led to form this conclusion from a consideration of the temperatures of the above thirty-three cases. These temperatures were invariably taken in the rectum, and between the hours of 9 and 12 A.M. Given as the patients first came under observation, they are as follow:—103·6° (Fahr.), 103°, 100°, 103·8°, 99·4°, 99°, 104·2°, 102°, 100·8°, 102·6°, 98·6°, 100·6°, 100°, 100·2°, 99·8°, 97·6°, 99·6°, 102°, 101°, 99·8°, 101°, 98·6°, 103·7°, 100·8°, 100°, 98·6°, 102·6°, 100·8°, 99·8°, 102°, 100·4°, 101·2°, and 99·4°. Many of the above high temperatures were taken from children emaciated to an extreme degree, and amongst whom, from appearances, we should least expect to meet with them. During the subsequent treatment the course of the temperatures was generally very irregular, some of the more normal ones exhibiting slight exacerbations, whilst most of the higher ones indicated defervescence. For several days the irregularities observed in some of the high temperatures were sudden and plunging; in nine instances the temperatures were sustained above the normal for periods varying from three to eight days, and no less than seven of these cases ended fatally. Many of the more normal temperatures taken were, in my opinion, but *reductions* from the febrile condition induced by the profuse and frequent discharges from which the infants suffered.

The temperatures as observed in the early stages of eleven adult cases showed a slight increase over the normal standard, the highest being 99·8°, but this increase was fugitive, and the normal temperature of 98·6° was observed in each case subsequently.

Characters of the bowel discharges.—The characters of the evacuations in infantile cases are peculiar. As they issue from the bowel they are, in the vast majority of instances, alkaline in reaction, most offensive in odour, and often ammoniacal. They vary exceedingly in appearance, some being deeply tinged with bile, while others are of a pale clay colour, or straw colour, or greyish, and these various hues are all more or less disguised and modified by variable quantities of undigested food. Upon standing, the evacuations separate into two layers, the upper being shallow and watery and the lower formed of a sediment of the consistence of moderately thick starch, and composed principally of articles of nourishment in an undigested state. Now, if a small quantity of the upper layer, or a little of the watery portion, of a stool that is just evacuated be collected by means of an ordinary clean lymph tube and submitted to microscopic examination, there will be observed: (1) Particles of undigested food; (2) fat-globules in greater or less profusion; and these invariably accompanied with (3) innumerable bacteria. These bacteria are of two genera—viz., (*a*) Minute glistening single spherules of micrococcus in active jostling movement; and (*b*) numerous rods of bacterium termo, some in a resting condition, but the great majority in rapid swimming and tumbling motion. The staves vary somewhat in length, and along the centre of some there may be detected an extremely faint line.

These organisms are the active agents in causing putrefaction in animal nitrogenous substances, and in any putrescible liquid containing albuminoid organic matter, the establishment of putrefaction depends upon the development and multiplication of these infinitely small organised living beings.

In the fresh liquid ejecta of adults, I observed, in addition to the forms mentioned above, considerable numbers of staves, some bent, but the greater number straight, and much longer than the ordinary bacterium termo; these moved actively in a sliding and slightly undulating manner, and the locomotive power of some was so great as to enable them to cross the field of the microscope with rapidity. In samples of adult stools kept exposed to the air at a constant temperature of about 70° Fahr., I observed numerous chains of micrococci in the course of twenty hours. The appearance of this new species may, in my opinion, be accounted for by an admixture of urine with the fæces taking place during the action of the bowels, as similar chains are always found in urine undergoing putrid decomposition. All recent specimens of adult stools

also contained an abundance of crystals of ammoniaco-magnesian phosphate, some of which were of large size. I have never detected these crystals in the fresh evacuations of infants. On many occasions I also recognised the spores of penicillium in adult stools, but these were not peculiar, as their presence was almost as frequent in the infantile motions. I may mention, before leaving this part of the subject, that I have never once found the stools of any of forty-nine patients (aged, adult, and infantile) affected with the disease to be free from these organisms, but, on the contrary, they invariably contained bacterium termo and micrococci in great numbers. The youngest patient whose stools I examined was only three weeks old, and the age of the oldest patient was seventy-six years. I have never been able to detect bacteria in the liquid motions of infants during health, and amongst my patients I observed that the gradual disappearance of the bacteria from the stools was in great measure commensurate with their recovery.

Vomited matters.—In the vomit of seventeen breast-fed infants affected with "summer" diarrhœa, I invariably found rods of bacterium termo, and highly refractive micrococci. The relative proportions of these bodies, as observed in the bowel discharges, seemed to be reversed in those from the stomach, as here the glistening micrococci appeared, amongst numerous oil-globules, in greater number than the rods; most of the latter were also motionless, and the numbers of both forms were very much less than in the evacuations. These seventeen infants all suffered from the disease in a grave form, and three of the cases ended fatally. I would draw particular attention to the fact that these infants had all been fed on the breast alone, and had never at any time since their birth received artificial food. That the testimonies of the mothers in all these instances are correct I do not for a moment doubt. I attended the women in their confinements, and took special pains to impress upon them the great importance of only giving their offspring the breast-milk so long as this was present in sufficient quantity.

(To be concluded.)

ON SYSTEMATIC EXERCISES; THEIR VALUE IN THE PREVENTION OF DISEASE.[1]

BY EDWARD T. TIBBITS, M.D. LOND.,

PHYSICIAN TO THE BRADFORD INFIRMARY AND THE BRADFORD FEVER HOSPITAL.

IN introducing this subject I do not for a moment imagine I shall disclose any great novelty, but it is quite possible the importance with which I have regarded it may be considered by some persons exaggerated, unproven, or altogether fanciful.

It will be universally admitted that *properly regulated* exercise is absolutely essential for the preservation of that valuable combination, "a sound mind in a sound body." Should the exercise become deficient (which is by far the most frequent error), excessive, or irregular, unsoundness of mind or body to a greater or less extent is a natural, common, although, perhaps, not invariable consequence.

Now, it must be borne in mind that our function as medical men is mainly of a twofold nature—viz., (1) to prevent disease, and (2) to cure it; and although I believe systematic exercises are extremely useful in the treatment of disease, it is only possible during the time at my disposal on this occasion to place before you an imperfect sketch of what appears to me their real *hygienic* value. Their sanitary influence may be considered to spring from two sources, the direct and the indirect, to the latter of which I propose mainly to confine my remarks.

And, firstly, a few words concerning the direct physical, or chemico-physical source. The direct beneficial effects of exercise are acknowledged by all men—lay as well as professional; nevertheless it is a fact, especially as regards its *systematic* character, which is practically ignored by a very large number of individuals. Without entering very minutely into details, I will simply enumerate some of the more important effects of exercise. (1) It increases the action of the skin, lungs, bowels, and kidneys—i. e., those organs specially intended for the separation and removal of effete material. (2) It increases the quantity of heat within the body, although it probably does not produce much, if any, elevation of temperature. (3) It produces inspissation of the fluids of the body, and hence absorption of food takes place more rapidly and with greater facility. (4) The determination of blood to the muscles during exercise, to a certain extent, drains the viscera, and, as a consequence, they perform their respective functions more efficiently when called upon to do so.

In a few words, the probable, although perhaps not immediate, effect of the judicious systematic exercise of which I am now speaking is the production of a more thorough and rapid tissue change, in conjunction with an increased and more efficient functional activity of all parts of the body. Here, I think, it will not be out of place to refer briefly to the principal conclusions at which Dr. Pavy arrived in his interesting investigations on Weston, the pedestrian. He says—(1) That, although there is a greater elimination of nitrogen during severe exercise than can be accounted for by increased nitrogenous food, the motor power does not arise from oxidation of muscular tissue; and the greater proportion of nitrogen eliminated is probably directly derived from metamorphosis of nitrogenised ingesta, without passing through muscular tissue at all. (2) That, supposing the elimination of one grain of nitrogen to represent about 2·5 foot-tons, it was calculated that the nitrogen eliminated was only sufficient to account for about half the force expended. It is natural, therefore, to conclude that a considerable quantity of force must be developed from consumption of hydro-carbonaceous food. I may mention that Weston's work during his six days' walk represented nearly 1200 foot-tons per diem. According to the late Dr. Parkes, 500 foot-tons is an extremely hard day's work. "Every man," says the same writer, "ought to take an amount of daily exercise of some description equivalent to about 150 foot-tons, or a nine miles' walk." It must not be forgotten that, although there are comparatively few individuals who make a point of actually walking nine miles daily, there are many who do an amount of work, in some form or other, equivalent to that walk. (3) That increased exertion requires an increased quantity of nitrogenous food. (4) That, with the exception of chlorine, sodium, and magnesium, there is a great increase in all the mineral ingredients in the urine, the most notable being phosphoric acid, which is nearly doubled during severe muscular exercise.

But, secondly, I believe that important salutary changes may be effected in the human body from what may provisionally be termed the indirect or physico-mental source. Without venturing to make too sweeping an assertion, I think it will be found, on strict and impartial investigation, that the following proposition is substantially correct:

I. That much disease arises, directly or indirectly, from excessive indulgence in the gratification of the senses and appetites, or some form of selfishness.

Disease arising from an action, or a line of action, which is pursued altogether irrespective of others, because it is a source of pleasure to the individual performing it, is, I believe, much commoner than appears at first sight, or than we should be inclined to admit. I will not attempt to enumerate the different diseases which are constantly springing out of some form of excess, many of which do not admit of any doubt. From the crown of the head to the sole of the foot, commencing with the various forms of cerebral disease, and terminating with what I presume may be called that agonising complaint of the great toe, I think it will be found that deficient self-control stands in a very prominent etiological position. But it may be urged that excess in all its forms has not so very much morbid influence, otherwise the amount of disease would be more commensurate with the great prevalence of bad habits. There must be a peculiarity of constitution, or a something else, to produce the effect. Most likely; but at the same time, if we have positive evidence of the sequence in ten or fifteen per cent. only, it is not irrational to infer that the ratio in all probability is considerably greater, although incapable of positive demonstration. If it were possible to strike six persons on the leg in the same spot with the same weapon, and with exactly the same amount of force, it would not be surprising if results differed somewhat in each case. Perhaps in one or two instances only the leg might be fractured. Would it, therefore, be logical to say that, after all, the blow had not very

[1] Paper read before the Leeds and West Riding Medico-Chirurgical Society.

much to do with it? But, independently of the direct origin and propagation of disease in this manner, are there not many undoubted morbid tendencies produced by drunken parents neglecting to make proper provision for their children? May not the spread of many of the exanthemata be traced to the selfishnessness of parents, schoolmasters, and owners of property? Can we not detect in marriages of consanguinity and the union of delicate individuals a certain amount of selfishness, although it may be disguised in the garb of expediency? And what other word so aptly expresses the conduct of that mother who forsakes her own child for a time, and places it on the breast of a stranger, in order that she may indulge in the festivities of the ball-room or some other form of entertainment? Is this one of the signs of progress and civilisation? Is it natural? Is it human? Is it right? In very truth, it appears to me the most unnatural thing in nature. Even if the foster-mother be sober, it is not unlikely to lead to increase of disease. It is well known what a powerful influence anger, grief, &c., exercise over the quantity and quality of the mammary secretion. Notwithstanding those who are sceptical on this point, I feel thoroughly convinced that the state of the nervous system in the mother when she is suckling does affect the health of her child, not only in body, but most probably in mind also. It is not to be expected that the foster-parent will display that tender emotion towards her nursling, or be so anxious to control her feelings and passions, as a true mother. And is it not reasonable to suppose that the feeling of exquisite tenderness exhibited by a truly natural mother towards the infant at her breast must have a certain appreciable value in its nutrition and development?

It appears strange, although probably familiarity with the danger makes us despise it, that we do not sufficiently appreciate the fact that much disease is directly produced by disregarding laws of Nature, as plain and invariable as those of gravitation and motion. Is it likely that we shall escape disease if we constantly act and encourage action which we know will assuredly produce it?

If the first proposition be correct, the second follows as a matter of course.

II. That by a more frequent and thorough exercise of the inhibitory power of the Will much disease might be prevented.

This requires no comment, as it is self-evident.

The third proposition, which embodies the main point of my paper, is as follows:—

III. That the efficiency and power of the Will may be materially increased and strengthened by systematic exercises.

Before endeavouring to prove this it will be necessary to make a few preliminary remarks on the constitution of the mind. It is supposed to have, if I may so call it, a trivet nucleus—*feeling*, *thought*, and *volition*,—not three distinct nuclei, but one nucleus, divided into three portions, united together. For the sake of argument, let us presume that these three portions are equal in a perfectly well-developed and well-balanced mind. The different phases of human character met with in our journey through life depend in a great measure upon the proportion in which these three elements of the mental nucleus are combined. For example, one individual is over-sensitive, another is so much absorbed in thought that ordinary matters are overlooked or disregarded, while a third carries out the dictates of his will almost irrespective of his own feelings or those of others. With regard to volition, it is important to bear in mind how intimately it is connected with muscular movements. Commencing in intra-uterine life, and increasing at birth, by degrees, after numerous unsuccessful attempts, muscles, and groups of muscles, move in obedience to a wish. Voluntary observation and adjustment are followed by voluntary control; and, finally, the control of the feelings and thoughts completes the superstructure erected upon, and developed from, the purposeless movements of the infant.

(To be concluded.)

A DISPENSARY for Women and Children has been opened at Fountainbridge, Edinburgh, and Dr. P. Heron Watson, Dr. G. W. Balfour, Dr. Angus Macdonald, and Dr. Ritchie, have been appointed Consulting Medical Officers, and Dr. Sophia Jex Blake has been appointed Attending Medical Officer.

ON WOUND OF THE LUNG.

BY J. FOSTER PALMER, L.R.C.P. LOND.

I WAS sent for on Sept. 25th, 1877, to see a child named William B——, aged seven, son of a sergeant in the Coldstream Guards. He had been run over by a brewer's cart; he was knocked down on his face, and the wheel went completely over his body diagonally from the left shoulder to the right hip. There was no injury to the spine, with the exception of a fracture of the spinous process of one of the upper dorsal vertebræ. The upper part of the chest, also the neck, and part of the face on the left side, were swollen and extremely emphysematous. There was no external wound. The boy was quite conscious, and groaning continuously, though the dyspnœa did not appear very great.

Later on in the evening I applied a bandage to the upper part of the chest, which appeared at the time to give relief. I left instructions, however, that it was to be taken off if it caused discomfort, which occurred shortly after. At 11 P.M. the emphysema had reached the left axilla, but had not spread further in any other direction; the patient could lie on his back and right side, not on his left. Ordered to lie perfectly still, and be fed on milk and beef-tea.

Sept. 26th.—Has had a quiet night; emphysema not spread any further; breathing quiet. Has passed water. Some increase of resonance on the right side.

28th.—Breathes quietly, sleeps well, and is quite cheerful. Swelling rather diminished. Pulse steady. Takes milk and bread and butter.

30th.—Swelling considerably gone down since yesterday; no pain. General condition satisfactory.

Oct. 2nd.—Very little emphysema perceptible. Slight cough. Pulse quiet.

4th.—Nearly well.

There is not much doubt that in this case one or more ribs had been fractured, and a broken end had penetrated through the two layers of pleura into the substance of the lung. This is a state of things which must always be looked upon as extremely serious, and my prognosis at the first view of the case was anything but favourable. Cases of wounded lung, however, are practically found to be less frequently fatal than would at first sight be expected. The reasons of this are worth considering.

The cause of immediate death in all cases of wounded lung is collapse of the lung-tissue. This is the natural result of opening the pleural cavities, as was shown by the experiments of Professor Richet, of Paris. He made incisions into both the lungs of a dog, keeping the lips of the wound well open. The dog died asphyxiated in a very short time, and on dissection the lungs were found completely collapsed. To show that this result was not due, as had been formerly supposed, to the pressure of atmospheric air from without, but to the inherent contractility of the lung-tissue, he made some further experiments on the dead (human) subject. They were performed thus:—An incision was made between two of the ribs in front of the chest, and the tissues dissected away as far as the parietal layer of the pleura, so that the movements of the lung could be seen through it, care being taken that both layers of the pleura remained intact. A subcutaneous incision was then made with a tenotomy knife into the substance of the lung, near the bodies of the vertebræ, between the third and fourth ribs. The lung, as was seen by watching it at the first incision, did not alter its position in the least; but on performing artificial respiration it gradually receded from the wall of the chest, and (the process having been continued for a time) was found on dissection to be completely collapsed. This was obviously due to the retractility of the lung causing the air within it to be expelled into the cavity of the pleura, and not to pressure from without. Such was the average result when no adhesions existed between the layers of the pleura; if there were extensive adhesions collapse did not take place, and where the adhesions were partial the collapse was limited to the non-adherent parts. Those who have performed many post-mortem examinations well know that adhesions of the pleura are rather the rule than the exception. In any case of wounded lung, therefore,

the chances are at least equal that they will be present. This is probably a fortunate circumstance, and will account, in many cases, for the non-occurrence of collapse, and a favourable result in consequence. If every man's pleura were entirely free, I believe the mortality from wounded lung would be far greater than it is. It may not be unreasonable to suggest that the effusion of coagulable lymph in the pleura is partly a physiological process set up for the greater protection of the lung in case of injury. The retractility of the lung-tissue may also be interfered with by congestion or partial consolidation of the lung itself.

In the patient mentioned above the presence of emphysema, the favourable result of the case, and the probable absence of any previous mischief in the lung itself, point to the existence of a certain amount of adhesion, though this is not so frequent in young children as in adults.

The sudden cessation of the alarming symptoms in this and similar cases I think can be accounted for in the following manner:—It is well known that, in the process of healing by primary adhesion in any part of the body, lymph is thrown out with great rapidity. Sir J. Paget found the edges of a wound in a rabbit operated on for hare-lip united after forty-eight hours by lymph which had commenced to organise. He has also found the edges of an incision in an abscess united by lymph in seventeen hours, and frequently within twenty-four hours. It is known, too, that in this membrane, the pleura, coagulable lymph is secreted very quickly, having been found in cases of pleurisy to be organised in twenty-four hours. To cover a wound in the pleura the mere effusion of lymph is sufficient, without any attempt at organisation, and when the collapse of the lung is from any cause even slightly retarded, this may occur before any great amount of retraction has taken place. Any further escape of air is thus effectually prevented, and the two wounds in the pleura can heal at leisure. The air already in the pleural cavity and cellular tissue will gradually become absorbed, and, as it does so, the lung will resume its former state of expansion.

King's-road, S.W.

ON THE INFLUENCE OF THE ZYMOTIC POISONS UPON THE PUERPERAL CONDITION.

BY WM. STEWART, M.R.C.P. &c.

IN his admirable and instructive paper upon "Puerperal Septicæmia, and its relations, if any, with the poisons of the specific zymotic diseases," in THE LANCET, July 20th and 27th, 1878, Dr. Strange, speaking of the effects of zymotic infection upon the puerperal woman, says that "cases of zymotic disease usually run the same course in the puerperal state, if the patient survive, as they do in the ordinary patient." Prior to this he describes another class of cases which appear to owe their origin to the same cause, but which do not run the ordinary course of the zymotic affection, but die very rapidly in two or three days after presenting symptoms of an order that may be said to be neither like those of the zymotic affection on the one hand, nor like those of true puerperal septicæmia on the other. He does not, so far as I can gather from a careful perusal of his paper, offer any opinion or advance any theory in order to account for the momentous difference in the symptoms, course, and termination of the two kinds of the affection, although they arise apparently from the same original cause. I agree in the main with his description of the two kinds of the affection, and I would venture to suggest that the true explanation of the very fatal symptoms presented by the second class will be found in a theory first advanced by me in 1874. In it I propose that we should look upon these cases as being a compound of both the affections, having both the zymotic and the septic poisons circulating in the blood at the same time.

Supposing a woman receives the zymotic infection during her pregnancy, no matter at what period thereof, this poison circulating in the blood may determine the period of parturition, or, in other words, throw the patient into labour, as Dr. Strange ingeniously remarks, "by the reaction of the poison on the blood," or, perhaps, as I would suggest, by a conservative law of nature, in order to deliver the fœtus from the morbific influence. We have then the woman in the post-partum condition, with her blood and system thoroughly imbued with a zymotic poison, with all the secretions and excretions in an unhealthy and vitiated condition,—who can wonder that the lochial discharge should, under these conditions, undergo rapid septic putrefaction, and be immediately absorbed into the circulation before the open mouths of lymphatics and veins could be sealed by lymphic effusion?

In the beginning of 1874 I was very much surprised to find, in a case of idiopathic erysipelas of the head and face that I attended in a woman during the period of labour, that she recovered as well as if there was no poison in her system, and in order to account for the good recovery in this, as well as in other previously recorded cases, I was driven to the conclusion that an additional factor besides the zymotic poison was necessary in order to develop those symptoms which prove so rapidly fatal to some of these, and I advanced the following theory[1]:—"It appears to me that in those cases of confinement where the system is previously infected with a zymotic poison (whether this poison be that of erysipelas, scarlet fever, typhoid, or any other fever), another factor is required for the development of those symptoms which are naturally dreaded as the worst forms of puerperal fever. In my opinion, this additional factor is to be found in the decomposition of a retained clot of a shred of membrane, or of the lochial discharge itself, and the absorption into the system, at the placental or any abraded surface of the uterus, of the products of this decomposition. When this takes place there are then two poisons in the blood at the same time, and the most disastrous results speedily follow. This additional infection is all the more likely to occur when a specific zymotic poison already holds possession of the blood, vitiating and rendering unhealthy, and thus more liable to rapid decay, all the secretions and discharges of the body. In this manner, I think, an explanation may be found of the very serious consequences usually resulting from a puerperal woman being brought under the influence of any zymotic poison."

I was pleased to see that this theory was endorsed by so high an authority upon the subject of puerperal affections as Dr. E. J. Tilt, in the memorable discussion upon the "Relation of puerperal fever to the infective diseases" held in the following year (1875), at the Obstetrical Society, where he says, at the June meeting of that year:[2] "We know that all zymotic diseases—take scarlatina, for instance—cause the secretions of the human body to tend towards decomposition. When a puerperal woman is submitted to the influence of scarlet fever, it promotes the decomposition of all the secretions; so, if they be already rendered fetid by a portion of placenta, or blood-clot, or membrane of the womb, it renders them doubly fetid, it renders the poison more virulent, and that sufficiently explains the frequent fatal effect of zymotic influence on puerperal women."

The above quotation, I presume, was delivered extempore in the debate, and therefore is rather hazy in the middle part of it; but Dr. Tilt elaborates the idea more completely in a paper headed "The late Discussion on Puerperal Fever," and published in the *British Medical Journal* for Sept. 4th, 1875, exactly one year after my paper was published in the same journal, containing the same theory. He there divides the views he holds on the subject of puerperal fever generally under six different heads, and under Division 5 I find the following:—"That, as with other patients, so with puerperal women, when attacked by zymotic influence, the whole of their secretions may be vitiated; so that scarlatina, for instance, may poison the lochia, if it find them healthy, or intensify the virulence of the poison if it find them already made putrid by any of the causes previously enumerated."

Now Dr. Tilt says nothing of my having, the year previously, advanced the same theory, and almost in the same language; so I presume that he knew nothing of having been so completely anticipated in its enunciation.

[1] See Brit. Med. Jour., vol. ii. 1874, p. 306.
[2] See Obst. Trans., vol. xvii. for 1875, p. 207.

I do not know that I should have taken any notice of the matter (as it is only a theory after all), had it not been that the president of the Obstetrical Society for 1876 (Dr. Priestley), in his *résumé* of the debate on the subject, and Dr. Henry Gervis, on another occasion, referred to the theory as Dr. Tilt's.[3]

In addition to the symptoms pointed out by Dr. Strange in these rapidly fatal cases, I would mention diarrhœa as a very constant symptom, and I think in the cases where scarlet fever, measles, or small-pox is the zymotic poison, diarrhœa occurring shows that the system is brought under the influence of the septic poison as well, as I believe diarrhœa is a prominent symptom in all the purely septicæmic cases arising from the absorption of decomposing albuminous matter.

The fatality of cases of puerperal scarlatina, as stated by Professor Olshausen, is very greatly increased by the presence of diarrhœa.[4] He says: "There can be no doubt of the ominous significance of this complication, for out of fifty-eight cases in which there is no mention of diarrhœa, twelve died, while out of twenty-one with diarrhœa, fifteen died." To my mind the presence of the diarrhœa in these scarlatina cases (as it is not a usual symptom of the disease in a non-puerperal subject) is ominous, because it clearly indicates the absorption of the septic poison into the circulation, and thus accounts for the great increase in the fatality of cases where diarrhœa is present.

In conclusion, I would formulate the influence of zymotic poison upon the puerperal condition whenever it is brought to bear upon the patient, either before or immediately after parturition, in the following manner:—

1. In a great many cases it has no morbific influence whatever. In these cases there is no doubt that the patient has been previously the subject of zymotic disease, and is therefore protected in the usual manner from a second attack. I believe this has been recently pointed out by Dr. Hickinbotham (THE LANCET, June 1st, 1878). I have also, in common with him and other observers, repeatedly seen cases of puerperal women lying in the same bed with children affected with scarlet fever, without any harm arising from the exposure to the infection. On inquiry, I have found that these cases have been the subjects of a previous attack, and have therefore come to the conclusion that a previous attack of a zymotic disease is as perfect a protection to a puerperal as to a non-puerperal woman.

2. Simple cases of zymotic affection in puerperal women, in which the patient takes the zymotic affection, and passes through it in the ordinary manner, as if in the non-puerperal condition, and presents only the usual symptoms of the particular zymotic disease with which she is affected. In the production of this class of cases, I think the time at which the infection is brought to bear upon the patient is an important element in the case, for if the zymotic poison has been introduced to the patient so as to vitiate the secretions and discharges from the body *only after the open mouths of lymphatics and veins are closed with lymph*, then the septic poison, if generated by decomposition, is effectually excluded, and the simple zymotic disease runs its usual course. In these cases my theory is, that they continue simple, because kept free from septic absorption at any part of the genital apparatus.

3. Those cases which might come under the designation of "zymotic puerperal septicæmia," or "septo-zymotic puerperal fever," where the symptoms are of a mixed, and to a certain extent masked, character, owing to the presence of a double poison in the blood—(*a*) the zymotic introduced in the usual manner, and (*b*) the septic arising from the absorption of decomposing material at the utero-vaginal parts. These cases seem to be usually produced by the patient being, in the first instance, so severely affected with the zymotic poison as to determine the period of labour, probably in the manner that Dr. Strange has pointed out, and to which I have already referred. The condition of the blood poisoned by the zymotic, the vitiated state of the discharges, and the unprotected state of the lymphatics and veins against the admission of the septic influence immediately after the delivery has been brought about in this manner, along with the theory of the nature and production of this fatal class, have been, I think, already sufficiently adverted to and explained.

Barnsley.

[3] See pp. 38 and 174 of Obstet. Trans. for 1876.
[4] See Obstet. Journal, vol. iv., 1876-77, p. 364.

TREATMENT OF WOUNDS OF THE SUPERFICIAL PALMAR ARCH BY ACUPRESSURE.

BY EDWARD BELLAMY, F.R.C.S.,
SURGEON TO THE CHARING-CROSS HOSPITAL.

A PERUSAL of the various English works on surgery does not impress me that this simple method is practised as frequently as it might be. I record a case which occurred lately in my own practice. A lad, whilst cutting some toffee from a plate, cut his ulnar artery through, just at the point where it takes its bend towards the radial side of the palm (in the "line of fate"), and when brought to my house, was losing blood rapidly, per saltum, from a deep wound about an inch and a half long. I applied Esmarch's bandage, and endeavoured to find the bleeding points, but to no purpose. I then plugged the wound and bound the hand to a dorsal splint firmly, so as to get pressure on the vessel by means of the tension of the palmar fascia, and applied compresses over the trunks of the radial and ulnar vessels. He soon returned to me bleeding as profusely as before. I then determined on acupressure, and taking a stout harelip-pin, passed it through the tissues about half an inch from the edge of the cut, under the artery, and out again to a corresponding distance the other side of the wound, and placed the limb again on the splint. This had the effect of entirely stopping the bleeding; the needle was removed on the fourth day, and the entire wound had closed by the end of the week.

I am well aware of cases of a like nature being treated by passing a harelip-pin under the radial and ulnar at the wrist, but although it has been effectual, it is not without its dangers, and I contend that in cases of wound of the superficial palmar arch (and this is not the first I have treated similarly), acupressure at the point of injury should be resorted to at once.

As a matter of anatomical fact, the bloodvessels, as it were, cleave to the palmar fascia, even after a long escape of blood; and, with ordinary anatomical precision, and a knowledge of the possible contingencies of irregularities, should be secured. A double needle might be used in some cases, to make quite sure—one on either side of the division in the vessel.

I need hardly say that these few remarks apply more particularly to wounds involving the superficial arch, although the "deep" arch is topographically not so deep or so ungetatable by this method as might be imagined.

Wimpole-street, W.

TREATMENT OF SANGUINEOUS CEREBRAL APOPLEXY BY THE SUBCUTANEOUS INJECTION OF ERGOTINE.

BY N. S. FOSTER, M.B.

THE utility of the subcutaneous injection for the exhibition of the active principle of ergot on account of the rapidity and comparative certainty of its action has been most successfully demonstrated in cases of post-partum hæmorrhage. From the explanation given of its inducing the contraction of the smaller arteries, and from the facility of its administration, especially in cases where swallowing is at least very difficult, I was led to use it in cases of cerebral apoplexy and also of hæmoptysis. It is for the former that I am enabled more especially to suggest its use, and from the results I have seen believe it worthy of a more extended trial in that form of disease.

Cerebral apoplexy proper, pathologically speaking, is essentially effusion of blood caused by a rupture, generally of the smaller arteries of the brain, whether of the punctiform or of the massive varieties—which, indeed, are more accurately degrees of the same condition. Perhaps the commonest kind of disease leading to this result is the formation of minute miliary aneurisms, their subsequent rupture, and thence the usual train of symptoms.

At present I can record only two cases in which I followed out the plan of treatment.

CASE 1. — I was sent for and informed that the patient, aged seventy-two, had been seized about half an hour before my arrival. The ordinary apoplectic symptoms were present, and the coma gradually deepened during the application of the usual remedies. I then injected ergotine subcutaneously in the forearm. The comatose state soon seemed to become stationary, and eventually the patient made a good recovery.

CASE 2 was similar in most respects to No. 1; but in this patient, who was sixty-four years of age, I injected ergotine at once; and here the coma, which was only partial on my first seeing the patient, never increased in intensity, but soon passed off, and to all appearances he made a perfect recovery.

In both cases I satisfied myself of the absence of cardiac disease, and hence possibly of embolism; and from the history it was fair to conclude that effusion was the cause.

For the success of this treatment, both temporarily and permanently, a great deal depends on the promptitude of its administration, before much hæmorrhage has taken place, and consequent damage to the cerebral substance. The strength of the injection I employ is ten grains of ergotine to the fluid drachm; injecting twelve minims deeply into the muscles, and not merely into the subcutaneous tissue, as in the latter case suppuration is very apt to ensue.

Wisbeach.

CASE OF OVARIOTOMY IN INDIA.

BY M. W. GAIRDNER, M.B. EDIN.

OVARIOTOMY has not, as far as I remember, been frequently performed in India, and I think the following case may be of some interest if recorded. The exhaustion and general state of the patient were such as to make the prognosis very unfavourable, but I thought it right to give her the chance of the operation.

P. D——, a Hindoo woman, aged twenty-five, was admitted into the Bhosawul Hospital on March 7th, 1877, suffering from a large abdominal swelling, great exhaustion, and frequent cough, with copious frothy expectoration.

She began to menstruate at the age of fifteen. Had had three children, the last two years ago, from which time she dates the appearance of the swelling. Since then the abdomen had gradually increased in size and more rapidly lately. The menses had only appeared scantily and at long intervals since her last confinement. The appearance of the swelling was accompanied with an attack of general fever, which lasted two days, and was followed by swelling of hands and feet.

The abdomen measured fifty-one inches round on a level with the umbilicus, was greatly and generally distended, the swelling soft and fluctuating, and dull all over from ensiform cartilage to pubes, and transversely into lumbar regions. The skin was thinned, tense, and glistening, and on deep inspiration the abdominal wall was seen to move over the swelling. The vaginal walls were somewhat prolapsed, and, projecting into both cul de sacs, soft fluctuating swellings were felt, and palpation externally communicated distinct fluctuation to the finger in vagina. The uterus was small, and the os would not admit the sound. The urine was free from albumen; sp. gr. 1012. The general condition was very feeble; unable to raise herself in bed, or take much nourishment. The ankles and feet were somewhat swollen and dropsical. She had frequent cough, with quantity of frothy expectoration, and some râles and faint crepitation were heard over both lungs at certain parts posteriorly, but there was no perceptible dulness on percussion. Pulse 150; temperature 100·2°.

March 10th.—As she was slightly improved, I determined to operate to-day, and this morning, at 10.30, after the patient was well under chloroform, I made a vertical incision from the umbilicus towards the pubes, about six inches long, and with a little dissection exposed the cyst. In passing my hand round it, some adhesions to anterior abdominal wall and diaphragm were felt and were torn through. A trocar was then introduced, and about 700 ounces of dark-greenish oily fluid, with flocculent whitish masses intermixed, drawn off. The cyst, which weighed three pounds, was then drawn out of the belly, some firm posterior adhesions having to be torn through to free it. The pedicle, which was long and about the thickness of a little finger, was tied firmly with stout carbolised catgut, divided and returned into the abdomen. Where the adhesions had been torn through, some oozing occurred, and after carefully sponging this out, the wound was closed with silver wire sutures, and a compress and bandage applied. She was then put to bed, and a quarter of a grain of morphia given by hypodermic injection. She recovered well from the operation, and the same evening was free from sickness, had little or no pain, and small quantities of iced soda-and-milk relieved her thirst. Temperature 100·8°; pulse 140.

Next day she expressed herself as better; little or no abdominal distension or pain. Had some beef-tea and milk at intervals. Pulse 138; temperature 102°. In the evening she continued well. Pulse 140; temperature 104° in vagina. On the 12th, about 5 A.M., she complained of tightness and pain across the chest, and weakness, and in spite of stimulation she rapidly sank, and died at 2 P.M. the same day.

At the necropsy both lungs were found much congested, and the heart pale and small. The abdomen was somewhat distended, and on opening it the peritoneum presented a somewhat granular appearance at some parts. The pedicle and its immediate vicinity were free from inflammation, and the catgut ligature was seen in it firmly adherent.

The result was very disappointing, as for forty hours after the operation the symptoms were favourable, and her rather rapid death was scarcely looked for. Her condition the day after the operation was better than it was before, and she expressed herself as better, and much relieved. The time of the year was unfavourable, the temperature during the day reaching over 100°, and the lowest at night 86°.

Bhosawul, India.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tam aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

LONDON HOSPITAL.

TWO CASES OF PERITYPHLITIS, WITH REMARKS.

(Under the care of Dr. STEPHEN MACKENZIE.)

CASE 1.—W. F——, aged twenty-two, trouncer, admitted on June 6th, 1877. He never remembered having a day's illness until the previous September, when, whilst walking home from work, he came over "faint," as if from hunger. On reaching home he made a full meal off fish. He still felt "faint" after his meal, but had no pain, and went to bed at the usual time. On the following morning he found his face very red and swollen, and his eyes partly closed. On rising he found he had pain in the right side of his abdomen; he had no appetite; his bowels were constipated; and he only had ease when he lay with his knees drawn up. On the third day he took to his bed, as he was unable to stand. His abdomen was leeched and poulticed, and the doctor in attendance said it was "peritonitis." He gradually got better. At the end of three weeks he was able to leave his bed, and a fortnight later he returned to his work. Afterwards he had several slight attacks of pain in the same situation, but was not obliged to give up work until the present attack.

He felt very well until 8 A.M. on June 1st, when the old faintness came upon him, with the pain in his right side. He managed to do his work all day, and then went home to bed. The pain was very severe, but he got some sleep from medicine given for the purpose. Diarrhœa set in after previous constipation. The pain continuing, he applied at the hospital for relief.

On admission he was a well-built young man, with capacious chest, and strong, muscular limbs. There was no intra-thoracic disease. He lay either on his back or on his side, but in every position he always kept his right thigh flexed at an angle of about 120 degrees with his body, and could not extend it beyond this. When his femur was

moved about the great trochanter rotated well, and the position of that bony prominence relative to the pelvic bones was unaltered. The gluteal folds were natural. He had no curvature or other irregularity of the spine, and no pain on percussion along the spine. He passed urine readily; it was high-coloured, acid in reaction, and did not deposit mucus or pus. In the right iliac region, about two inches and a half from the anterior superior iliac spine, and on a line with the umbilicus, an indistinct swelling could be seen as a slight prominence from the abdominal outline, and felt as a deep-seated, semi-firm swelling, which was slightly painful on pressure. His skin was hot and moist; temperature 102·4° F.; tongue furred and tremulous; bowels confined; no vomiting or nausea; appetite bad. Ordered a linseed poultice to the abdomen, and five grains of Dover's powder to be taken night and morning. To have fluid diet, and not to rise from his bed.

On June 11th, for the first time, he was able to extend his right leg fully, and he had no pain when he lay still; bowels not open. On the 14th, he had no pain as he lay in bed; the swelling in the iliac region was no longer discernible. A week later he had no pain in the iliac region, except on pressure; the bowels had only acted once since admission, and that was previous to commencing the Dover's powder. On July 21st he had no pain, but there was still tenderness on pressure. The temperature was normal; he slept well; kept his legs extended. Dover's powder discontinued. On the 25th the patient felt well and slept well; had no pain or tenderness on pressure; the temperature was normal. Had a fish diet. Having kept his bed up to this time, he was now allowed to get up, and, as no pain occurred when he walked about, he was discharged.

CASE 2.—E. J. E——, aged twenty-one, joiner, was admitted on June 16th, 1878. About twelve months before admission he was seized with pain in the stomach and vomiting one night, which lasted two or three hours. He felt pretty well the next morning, but did not go to work that day. Three or four months later he had another attack, similar to the first, but more severe, which kept him in bed two or three days. Six weeks after this he had another attack, still more severe, and he was at home a week on this occasion. About six months before admission, he had another attack, and again a month later. Altogether he had six or seven attacks. These attacks, he said, left his skin a little yellow.

On June 11th he got wet. On the following morning, on going to work, he felt pain in his stomach. He went home and to bed, where he lay with his knees drawn up to his chin. He vomited; could not eat or sleep; his stomach was very tender and sore, especially on the right side; his bowels were very much relaxed the day before the onset of his pain, but had not acted again until the day before admission, when he took medicine for the purpose. His urine had been red; he had been hot, thirsty, and restless.

On admission he was a dark-complexioned, well-nourished, well-built young man, with a moist skin and furred tongue. Temperature 101°. There were no physical signs of cardiac or pulmonary disease; the liver-dulness was not increased. When he lay flat on his back, the right iliac region was a trifle more prominent than the left. Palpation did not reveal anything, as the right iliac region was so tender on pressure that the slightest touch caused him to contract his abdominal muscles and writhe his body away. The scrotum could be readily invaginated into the inguinal canal without the finger encountering anything abnormal. There was no curvature of the spine or tenderness on percussing it. Ordered five grains of Dover's powder each night; a poultice to the abdomen; to have a fluid diet, and not to leave his bed.

On June 23rd he had no pain at all in his abdomen. He could draw a deep breath without pain. There was still a little tenderness on pressure. The bowels had not acted since admission. The temperature, which had been as high as 103°, was normal, and had been so for two days. He was kept on milk diet until July 4th. His temperature had then been normal for some time. At this date he had no pain, but there was still tenderness on pressure. Allowed pudding. On July 10th there was slight pain in the abdomen, which was relieved by a castor oil enema. On the 14th he had no pain, tenderness, or swelling. The temperature was normal. He was still taking the Dover's powder, and had not yet been allowed to get up. On the 20th he was allowed to get up. He had no pain except when walking or stretching himself. Still took the Dover's powder. On the 23rd the Dover's powder was discontinued; a mixture containing perchloride of iron was prescribed; he was allowed to go into the garden, and to have a bath. On the morning of the 24th he had pain in his abdomen, and in the evening he had shivering accompanied by nausea. On the 25th his temperature was normal, pulse 74, respiration 20; he was ordered to keep in bed. The pain and other symptoms disappeared after two days in bed, and as he had no recurrence of them when again allowed up he was made an out-patient. He remained under observation for a week or two, and had no further relapse.

Remarks by Dr. MACKENZIE.—The diagnosis of typhlitis or perityphlitis usually presents but little difficulty. The disease is most common in young males, but young females are not exempt. The disease generally begins, more or less abruptly, by the patient noticing a fixed pain in the right iliac region, where, on examination, tenderness is felt over a limited area, or where a circumscribed swelling or dulness can be detected. The swelling, when present, is always very tender. Vomiting is often present. Sometimes the bowels are constipated, sometimes relaxed. The patient is feverish. If seen standing, he keeps his trunk bent forwards so as to relax the tension of the fasciæ and muscles of the femoro-pelvic region; or if in the recumbent position, he keeps the right knee bent to attain the same end; efforts at extension cause pain in the cæcal region. Perityphlitis is a condition from which patients usually recover, and hence is apt to be regarded as a trivial complaint. Such is far from being the case, however. The attack is almost always due to some chronic disease of the cæcum or its appendix, and is apt, if not promptly recognised and treated, sooner or later to prove fatal. The distinct swelling and inability to extend the thigh, which occur so usually and so early in the attack, accord with the result of post-mortem experiences in leading us to the belief that the areolar tissue around the cæcum is almost invariably implicated. Often ushered in acutely, after some apparent error of diet, it is usually thought that some irritating or imperfectly digested food has lodged at the part, and is giving rise to the symptoms. Such probably is the case, but there must be some morbid state of the cæcum or appendix before this result is produced; at least, in cases where a post-mortem examination is made, some disease of long antecedence to the acute attack is found, and generally in the vermiform appendix. When, therefore, called upon to treat a case of perityphlitis, it should be remembered that it is not the irritating ingesta which have to be swept away from the cæcum, but *an inflammation* of the cæcum or of its appendix, and the connective tissue around, *which has to be controlled*, and which, unless it is controlled, will extend to the contiguous serous membrane, causing dangerous peritonitis, or form an abscess in the tissues around the cæcum. The essence of such attempts to control the inflammation is to secure perfect rest to the affected part; rest to the muscles which drag on the intestine when the interstices of the connective tissue uniting them are distended with the products of inflammation; rest to the intestines, the peristalsis of which tends to keep up incessant movements of the parts, to hurry on the contents of the bowel, and to disturb the inflamed part. The former is obtained by confining the patient to a horizontal position, the latter by small doses of opium. There is no need to commence treatment by a dose of castor oil to expel any unwelcome lodger. It is better to put the patient to bed at once, so as to carry out the principle of treatment. Any foreign substance, or undigested article of food, will quickly become ensheathed by mucus and cease to act as an irritant, if not attempted to be hurried on. The food should be restricted to fluids. The recumbent position and sedative should be continued until not only the temperature has returned to the normal and the swelling has disappeared, but until there ceases to be the slightest tenderness on pressure over the part. This latter symptom occasionally persists some time after the subsidence of the others, but if attention to this point is neglected, and the patient is allowed to rise and take solid food, a tedious relapse will probably be the penalty of impatience. No attention need be paid to the evacuation of the bowels for ten days or so; but at the end of that time, should the temperature be normal, and the pain and swelling have subsided, an enema, preferably an oleaginous one, should be administered, and repeated as required from time to time. The less often the bowels are disturbed the better, however, They soon learn to right themselves, and if there is any irregularity after recovery, a drachm of castor oil each morning

is an efficient and safe way of securing a daily evacuation. A poultice over the abdomen always affords relief, whatever else it may effect. Dover's powder is a convenient mode of administering the opium, the ipecacuan possibly exercising some useful influence; five to ten grains daily is all that is usually required. The return to solid food should be exceedingly gradual, and fluid dietary resumed on the least recurrence of pain. Before the patient is discharged from observation, he should be advised to lie up at the least threatening of an attack, and be specially cautioned against the use of aperient medicines on such occasions.

GENERAL HOSPITAL, NOTTINGHAM.

CASE OF INSOLATION.

(Under the care of Dr. RANSOM.)

FOR the notes of the following case we are indebted to Mr. A. R. Anderson, resident surgeon.

W. C——, aged sixty, a labourer, said to be of moderate habits and of previous good health, was admitted on June 27th, 1878. The history obtained from those who brought him to the hospital was, that he with other workmen had been engaged at a neighbouring colliery during the day, and for about five days had been much exposed to the rays of the sun. At 4.15 P.M., as he was walking home after finishing his work, he was seen to stagger and fall, but did not at that time entirely lose consciousness, being able to swallow some drink which was given him. Shortly afterwards he became quite unconscious, and was at once brought to the hospital. Subsequently it was ascertained that he had been troubled with frequent micturition during the morning, having passed his water more than a dozen times, also that for some days previously he had been complaining of the heat and of "feeling badly."

On admission, at 5.20 P.M., there was complete unconsciousness and insensibility, with muscular relaxation and loss of all voluntary power. Respiration was hurried and gasping; the pupils were very much contracted, not moving in response to light; to the touch his skin felt burning hot and extremely dry, and on taking his temperature, it was found to be 108·6° in the axilla and 109·4° in the rectum. The heart's action was greatly excited, and there was much throbbing of the vessels of the neck. Pulse 170.

He was at once put into a bath kept at a temperature of 60° F. Respiration almost immediately became slower, and "sighing" rather than gasping as before. After he had been in the bath ten minutes, his pulse was 120, and his pupils were not so firmly contracted; the heart's action was quieter. He was kept in the water for twenty minutes, during which time the whole of his body was submerged, and his head freely sponged with cold water. He was then taken back to bed. On removal from the bath the temperature in the rectum was 101·2°, having fallen eight degrees. The surface of the body felt quite cool. Patient was still unconscious, and all the muscles remained flaccid. At 6.45 P.M. the temperature had fallen still lower, being now 100°. The axillary temperature could not be raised above 93°; pulse 120. He was rigid all over, and twitching of the muscles and jerking of the limbs had commenced. Respiration was shallow and noisy, impaired by the rigidity of the muscles. His face was rather livid, and his lower extremities, being specially cold, were wrapped in blankets, and hot water bottles were applied to them. At 7.15 P.M. the temperature in the rectum was 99·2°. The other symptoms had not changed. At 7.45 he was still rigid, but the surface of his body was considerably warmer. Temperature 102·4°. The hot-water bottles were now removed. At 8.15 the temperature had risen to 104°, and the muscular spasm greatly increased; violent twitching and jerking convulsive movements of the muscles of both arms and legs set in, the arms being most affected. The breathing was noisy and laboured; the pupils were still contracted and the face flushed. At 10 o'clock his temperature, which had been gradually rising, reached 105°. He was then placed in a cold wet sheet, and the bedclothes removed. During the next hour and a half the thermometer in the rectum registered the same degree, until, at 11.30 P.M., it fell to 102·4°. The wet sheets were then taken off, and the patient placed between dry blankets, the convulsive movements continuing.

At midnight the temperature was 101°, after which it rose until 3 A.M., when it had reached 103°. The twitching and jerking of the muscles was less marked, and rapidly diminished, ceasing altogether at 3.30. He passed urine unconsciously in bed. At 9.30 he was semi-conscious, and could be roused to answer questions correctly. His speech was thick and indistinct. The urine was phosphatic, and contained a considerable quantity of albumen. On auscultation over the cardiac region a well-marked diastolic murmur was heard, the result of acute rheumatism ten years previously. Axillary temperature 99·8°. He was ordered a mixture containing five grains of iodide of potassium three times a day, and towards evening regained complete consciousness.

June 30th.—His speech was decidedly more indistinct and thicker. He was quite unable to pronounce some letters, as T. He also complained of deafness. There was now only a faint trace of albumen in the urine. Temperature 98·6° in the axilla.

July 1st.—The urine was now quite free from albumen. He was still unable to speak plainly, although some improvement had taken place. Temperature continued normal.

On July 3rd he was allowed to get up, but complained of giddiness, and staggered on attempting to stand or walk. From that date he progressed satisfactorily, the vertigo disappeared, and his deafness and power of speech both improved. He was discharged in fairly good health on July 11th. Since then he has attended the hospital several times as an out-patient, and when last seen he expressed himself as feeling "quite well." The cardiac murmur remained unchanged.

Remarks.—It was towards the end of a week of unusually hot weather that the above case occurred. The maximum temperature taken in Nottingham on the day of the patient's admission was 88·5° F. in the shade, and the maximum solar radiation was 142·5°. It is a remarkable fact that this man alone was affected out of a number of others who were engaged at the same work and subjected to the same exposure as himself, the explanation, no doubt, being that his malady (heart disease) rendered him less tolerant of the heat than his comrades in robust health. The gradual onset of the disease—for the actual attack was preceded for some days by complaint of the heat, headache, loss of appetite, and constipation—the rapid lowering of the temperature by cold water, temporary albuminuria, and slow return to previous health are also points of interest in the case.

THE QUEEN'S HOSPITAL, BIRMINGHAM.

CYSTIC ADENOMA OF BREAST TREATED SUCCESSFULLY BY INCISION AND ANTISEPTIC DRESSING.

(Under the care of Mr. WEST.)

MARY P——, aged forty-one, single, a seamstress, was admitted on July 1st, 1878. No history of tumour in the family. She has had no illness or injury to the breast, and is in good health. About three months ago she perceived a swelling in the left breast, which she thought subsided after a time, and then reappeared, and continued to grow until it became as large as an orange. No redness, pain, or œdema, and the skin freely movable over the tumour; no retraction of nipple; axillary glands normal. There being a distinct, though deep, sense of fluctuation in the tumour, Mr. West introduced a grooved needle, when an ounce of thin serous-looking fluid escaped, which, on examination, was found to contain blood, fat, albumen, cholesterin, and some large irregular-shaped cells having the appearance of ground glass. The same evening the breast became painful. The pulse was 120, and the temperature rose to 101°. On the following day the breast was very painful, indurated, and swollen, and had a reddish blush over it; sense of fluctuation very evident. Temperature 100°; pulse 108.

Three days after the first puncture, the redness, swelling, and pain having increased, two free incisions were made in the summit and base of the tumour respectively, under the antiseptic spray; six or seven ounces of pus were evacuated, the cavity well washed out with carbolised water, and a drainage-tube introduced from one opening to the other. The breast was dressed antiseptically for a week after the operation; discharge was copious, but sweet; and no constitutional disturbance of any kind ensued. After the first week the openings were injected with solution of sulphate of copper (five grammes to the ounce), and the antiseptic

dressing only applied every other day. At the end of a fortnight the swelling had completely gone down, discharge had ceased, and there was scarcely a trace of induration about the breast. She was discharged from the hospital cured on July 22nd, the breast being strapped in the ordinary manner so as to keep up steady and equable pressure on it for some weeks.

Remarks.—This case serves to illustrate the good effects of free incision in cystic adenoma of the breast, and also the freedom from danger with which such operations can be undertaken when Lister's method is employed. No constitutional excitement of any kind followed the free opening of the cyst in this case when the carbolic spray was used and the breast dressed antiseptically, while simple puncture with a grooved needle made without those precautions was followed by violent inflammation in the cyst, so that the serous contents in three days became converted into pus, and great febrile disturbance was set up, as shown by the pulse rising to 120, and the temperature to 101°. The use of sulphate of copper injections to set up adhesive inflammation in the interior of the cyst, so as to agglutinate its walls, was attended by no constitutional excitement, as, at the same time, the antiseptic dressing was employed.

THE NOXIOUS VAPOURS COMMISSION.

MORE than two years have now elapsed since a Royal Commission was appointed by the Government to inquire into the effects produced on animal and vegetable life in the United Kingdom by works and manufactories from which are given off sulphurous acid, sulphuretted hydrogen, and ammoniacal or other vapours or gases, and to report also upon the best means for preventing the injury arising from the exhalation of these acids, vapours, and gases. The Commission was composed of very distinguished men of all parties and ranks, was presided over by Lord Aberdare, and presented its report on the 13th inst.

After referring to former legislation in 1862, 1863, and 1874, the report commences with a summary of the evidence adduced respecting alkali works, notably their effects on crops and vegetation in Lancashire. Dr. Richardson, Sir Richard Brooke, several agents of various large-landed proprietors in the county, and others were all unwaveringly unanimous as to the nature and extent of injuries perpetrated, both by these works, and by copper and other manufactories of chemicals. As regards the effect on health, the medical witnesses were agreed "that these gases produce aggravated chest affections," causing coughing, nausea, dyspnœa, and prostration. But, on the other hand, the manufacturers spoke of the good health of their workmen, and Dr. Richardson was unable to produce any evidence showing deterioration of health, though he thought the opinion that these vapours prevented epidemics must be abandoned. The evidence adduced on the side of the manufacturers was very conflicting, for Major Cross, an experienced and skilful man, whilst acknowledging the great destruction caused to property by these works, insisted emphatically that the land and its produce had increased in value steadily year by year. This statement was in some instances confirmed by agriculturists; but, as to the districts bordering on the Tyne, great mischief is still being done, in spite of the improvements effected by the Acts above quoted. As regards the actually destructive agent, the majority of evidence went to show that it was not so much coal-smoke as sulphuretted hydrogen, which is produced mainly by the mingling of the acids with the drainage of the alkali waste-heaps, and there was a general consensus of opinion that the discharge of acid into the drainage from alkali-waste should be prohibited. The conclusions, therefore, arrived at by the Commission on this point were—that the inspectorial staff should be increased, and that distinct powers should be given to inspectors to deal with these waste alkali heaps, and also with premises found in so dilapidated a condition that the work cannot be properly carried on—i.e., with a due regard to the prevention of these noxious gaseous diffusions.

The copper-works question is surrounded with difficulties. It is well known that sulphurous-acid gas is given off in large quantities during the process of copper-smelting, and the gist of evidence adduced before the Commission went to show that the establishment of plants for the manufacture of sulphuric acid was the only effectual way of averting the evil. The cost of such plants is very great, and, under the depressed circumstances of the copper-smelting trade, the Commission could not do more than recommend a plan of simple skilled inspection.

Evidence was taken as to the destructive gases and smoke emitted from coke ovens and salt works, and an extension of inspection was in such cases recommended. A large amount of evidence was offered as to certain nuisances that exist on the banks of the Thames between Greenwich and Greenhithe, including chemical manure works, malt-roasting works, tar works, oil works, and sugar works. The odours caused are undoubtedly very sickening and nauseous, but no positive evidence was adduced that they are actually detrimental to health, though "the intermittent discomfort and interference with the ordinary enjoyment of life can scarcely be exaggerated, and there is little doubt of the consequent depreciation in the value of house property." Much of this vapour arises from the cement works at Greenhithe, the materials employed being chalk and Medway clay, the offensive fumes from which can, it appears, be very much mitigated by using a more complete process of combustion.

The chief nuisances of this kind in the metropolis itself, as to which evidence was adduced, are those created by works at Lambeth and at Battersea. The acid vapours (muriatic) discharge into the air in the process of salt-glazing pottery-ware, and are destructive to stone buildings (as the Houses of Parliament and St. Thomas's Hospital), and to trees in the immediate neighbourhood, notably those in the gardens of Lambeth Palace. Inspection similar to that proposed as regards the copper works is recommended. The manufacture of sulphate of ammonia is carried on at Battersea, and the ammoniacal liquor pumped out as refuse emits a most nauseous, virulent, and dangerous odour of sulphuretted hydrogen. Lime refuse has also sometimes been detected in the neighbouring sewers, and legal proceedings have been taken in consequence of the death of a man who was sent down to clean these sewers, and who, it was alleged, died from the effects of inhaling the gas emitted. Gold-refining, it appears, also creates a certain amount of nuisance from sulphurous and sulphuric acid fumes; but as there are only four gold-refineries in London, and as the details of the process are kept secret, no legislation is suggested that would in any way affect them. Glass and lead works are briefly alluded to, but no special comments are made.

In considering generally the effects of noxious vapours upon human health, Mr. Simon, with his usual terseness and perspicuity, says: "To be free from bodily discomfort is a condition of health. If a man gets up with a headache, *pro tanto* he is not in good health; if a man gets up unable to eat his breakfast, *pro tanto* he is not in good health.....Every population includes a certain proportion who will have sensitive bronchi; these sensitive people are frequently very much troubled with those vapours as an effect on health, although not the production of disease..... I think that those who are fighting for public health may claim of the Legislature that any pollution of the air, such as may make a common nuisance, either in stink or in dust, or which causes coughing, shall be called a nuisance injurious to health, and come under the Sanitary Act." Thus much for health. The question of inspection as a remedial agent in respect of these nuisances was favourably dealt with by almost all witnesses, and its extension urged by the Commissioners in their summary of recommendations. The manufacturers would prefer an increase of the central inspectorate, but Mr. Simon, representing past experience, and Mr. Lambert and Dr. Ballard, still engaged in actual administration under the Local Government Board, object to centralisation. As to local inspection, the officer is always resident in the district, observes, or should observe, immediately any special escape of vapour, and is also at once accessible to those who have complaints to make as to infractions of the law. But, on the other hand, central inspection is uniform, and an equal standard of inspection can be readily maintained by a chief inspector dealing with subordinates appointed by the Government, and indepen-

dent of local control. And chiefly there is, as a rule, more willingness on the part of manufacturers to yield to central rather than to local inspection, and to take advice readily from them. However, opinions are so divided as to this, one of the most important sections of the work, that the Government is, after all, left to decide as to whether central or local inspection shall be adopted, the Commission admitting that inspection under the extended Alkali Acts cannot be carried on by officers appointed by the ordinary sanitary authorities, inasmuch as such officers must be skilled men, whose undivided service should be secured, and to whom liberal salaries must be given.

The summary of recommendations recites that the escape of more than one grain of sulphur in the form of any of its acids contained in one foot of acid gases shall be deemed an offence, or the escape of more than half a grain of nitrogen, but that these limitations shall not apply to the production of sulphuric acid from sulphur gases evolved from the treatment of sulphur compounds where otherwise the sulphur gases would escape uncondensed into the atmosphere. And they also recite that the deposit of alkali waste, so as to cause a nuisance, or the permitting acid drainage to come into contact therewith, or the permitting alkali waste to come into contact with acid drainage, shall be classed as offences. As to extension of existing Acts, it is recommended that the present Alkali Acts be extended so as to include chemical manures, coke-ovens, ammonia works, tar distilleries, and gas-liquor works. These, it will be seen, will affect the nuisances that now exist in the Thames riparian districts, nearly all of which are entirely preventable. As to inspection of works not already dealt with, it is recommended that works for the manufacture of cobalt, arsenic, cement, dry or wet copper, glass, lead, nickel, salt, spelter, tin plate, potteries (where the salt-glazing processes are used), and works for the manufacture of dyes from coal-tar derivatives, should be officially included. In fine, the practical result is that the Alkali Acts have, by a system of skilled inspection, partly central, done good, and that, taking them as the bases of future legislation, a considerable enlargement of a high-class inspectorial staff, with the adoption of the rules above indicated, will afford eventually the best means of remedying the substantial evils that now undoubtedly exist in many parts of the country.

SUMMARY OF THE RECOMMENDATIONS OF THE WAR OFFICE COMMITTEE ON THE ARMY MEDICAL DEPARTMENT.

1. That retirement be optional—surgeons and surgeon-majors,

After 10 years' service, on a gratuity of £1250.
15 ,, ,, ,, ,, £1800.
18 ,, ,, ,, ,, £2500.
20 ,, ,, ,, pension of £1 a day.
25 ,, ,, ,, ,, £1 2*s.* 6*d.* a day.
30 ,, ,, ,, ,, £1 5*s.* a day.

2. That horses be maintained at large stations by the Army Service Corps for the use of officers requiring to be temporarily mounted.

3. That a medical officer placed in barracks be allowed a distinct "medical officer's quarter."

4. That it be considered whether it is necessary to have so many resident medical officers.

5. That in case of sickness a medical officer may be be allowed, if necessary, leave on full pay up to one year for the recovery of his health.

6. That pay in case of wounds or ill-health be governed by the rules applicable to combatant officers.

7. That the question be considered of giving a new title to the medical department.

8. That the army departments have no precedence *inter se*, but be arranged alphabetically.

9. That honours and good service rewards be bestowed on the scale applicable to combatants.

10. That the honorary physicians and honorary surgeons to the Queen have letters Q.H.P. and Q.H.S. appended to their names in the seniority list.

11. That the names of the Queen's honorary physicians and surgeons be printed in the Army List after those of Her Majesty's aides-de-camp.

12. That appointment as honorary surgeon or physician raise an officer, *ipso facto*, to the rank (supernumerary) of surgeon-general.

13. That surgeon-majors rank with lieutenant-colonels according to the date of completing twenty years' service.

14. That surgeons rank as captains, probationers as lieutenants.

15. That principal medical officers be instructed to make the best arrangements practicable for relieving senior executive officers from the mere routine duties.

16. That at certain large stations medical institutes be formed.

17. That the conditions of Indian service for the rank of deputy surgeon-general be promulgated.

18. That for all new entries retirement after ten years be made optional instead of compulsory.

19. That officers who joined under the "ten years' rule," if allowed to come under the new system, retain their £250 a year; but, in case of subsequent retirement on gratuities, be only eligible for sums less by £250 than those shown in recommendation No. 1.

20. That one half of the vacancies be filled up without examination, but subject to the approval of the Director-General, by registered surgeons nominated and vouched by the medical schools of Great Britain, Canada, and Australia, in rotation.

21. That one half of the vacancies be filled by half-yearly competitive examination in advanced practical subjects.

22. That the probationers be sent to some large station for practical instruction, until the Netley course begins.

23. That probationers rank as lieutenants, and have pay at 8*s.* a day.

24. That the maximum age for admission as probationer be reduced to twenty-eight.

25. That an executive rank of 50 brigade surgeons be interpolated between the deputy surgeons-general and the surgeons-major.

26. That promotion to brigade surgeon be by selection.

27. That deputy surgeons-general be selected from brigade surgeons.

28. That the rates of pay and retirement be as shown in section 93 of this report.

29. That all medical officers retiring before the age of 55 be liable until that age to be called upon to serve in time of declared national emergency; that their names be retained meanwhile in italics, and that they be allowed to wear their uniform.

30. That the number of the executive ranks be gradually reduced to 796 surgeons-major and surgeons.

PHYSICAL DIAGNOSIS OF THORACIC ANEURISM.

To the Editor of THE LANCET.

SIR,—As the diagnosis of thoracic aneurism of the aorta is often difficult and obscure, notwithstanding the various physical means we have now at our disposal for detecting it, I am desirous of mentioning a method of examination which has afforded me material assistance in diagnosing this disease (or even simple dilatation of the vessel), when it occurs, as is most generally the case, either in the ascending or the first part of the transverse portion of the arch.

The process is as follows:—Place the patient in the erect position, and direct him to close his mouth and elevate his chin to the fullest extent, then grasp the cricoid cartilage between the finger and thumb, and use gentle upward pressure on it, when, if dilatation or aneurism exist, the pulsation of the aorta will be distinctly felt transmitted through the trachea to the hand. The act of examination will increase laryngeal distress should this accompany the disease.

Yours, &c.,
W. S. OLIVER, M.D., Surgeon-Major.

Sept. 13th, 1878.

A CENTENARIAN.—An address has been presented to Mr. Foott, J.P., of Carrigacunna Castle, Cork, on completing his hundredth year.

THE LANCET.

LONDON: SATURDAY, SEPTEMBER 21, 1878.

WE have been favoured with a copy of the Report of the Committee appointed by Lord CRANBROOK to inquire into the causes which prevented candidates coming forward in sufficient numbers for the Army Medical Department. The Committee consisted of Mr. THOMPSON, the Assistant Under-Secretary of State; Sir W. MUIR, the Director-General of the Army Medical Department; and Mr. ROBINSON, the Actuary in the War Office. They appear to have gone very fully into the subject, and to have inquired carefully into the alleged grievances of the medical officers, the discouragements arising out of the present system, the mode in which these may best be overcome, and the cost to the public of the changes which seem advisable. The report occupies about twenty-five folio pages, with an appendix of thirty pages, in which are detailed the reasons assigned by the various parties to whom the Committee applied, for the reluctance manifested to enter the Department; some tables are also given showing the pay and allowances of medical officers under the different Warrants which have been promulgated since 1848, the probable earnings of civil medical practitioners, and the actuary's report on the relative cost of the existing and proposed scales of pay and retirement.

The following brief sketch will show the leading features of the proposed scheme of reorganisation. It is suggested that the now unified department should receive a distinctive designation, such as "Royal Army Surgeons," or "Royal Medical Staff"; that it should be recruited by the admission of probationers, of whom one half are to be nominated by the "medical teaching bodies" of the United Kingdom, Canada, and Australia, and the other half to be admitted by open competitive examination—both classes to consist of gentlemen registered under the Medical Act, and the nominations to be subject to the approval of the Director-General. The Committee state that they are unwilling to recommend the abolition of the competitive examination until some means of securing a common standard of proficiency are adopted, such as (in their opinion) would be the result of the "one-portal" system of admission to the profession. The probationers thus obtained should be sent to one of the large military stations to learn their drill and stretcher-bearer and ambulance duty till the next course of instruction at Netley begins, when they would join the school there. During this period, and until they have completed their course at Netley, they are to rank as Lieutenants, and to receive 8s. a day pay. It is proposed that the maximum age on admission should be reduced to twenty-eight. The "ten-years" system is pronounced to be a failure, and is therefore to be abolished, and a life system to be resumed; but medical officers are to have the option of retiring, if they desire to do so, at any time after the completion of ten years' service, with a gratuity varying from £1250 to £2500, according to length of service. On retirement after twenty years' service, they will, as at present, be entitled to retired pay.

The Committee recommend the creation of a new rank, to be called Brigade-Surgeon, which will correspond somewhat with that of Fleet-Surgeon in the Royal Navy. They are to be executive officers, but employed, as far as possible, as "seconds" to the administrative officers, or, where there are none, as principal medical officers. They are to be promoted by selection from the Surgeons-Major, and from them the Deputy Surgeons-General are to be selected. The Committee recommend an increase in the rate of pay and retired pay to all ranks. The following table shows the rates proposed for the different ranks:—

—	Daily Pay.	Yearly Pay.	Estimatd. Pay and Allowances.	Non-effective Pay.	
				Daily.	Yearly.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Surg. on appointment..	..	200 0 0	291 5 0	—	—
,, after 5 years ..	..	250 0 0	341 5 0	—	—
,, after 10 years ..	0 15 0	273 15 0	365 0 0	—	—
Surg.-Maj. on appnt. (at 12 years' service)	1 0 0	365 0 0	483 12 6	—	—
,, after 15 years ..	1 2 6	410 12 6	529 5 0	—	—
,, after 20 years ..	1 5 0	456 5 0	584 0 0	1 0 0	365 0 0
,, after 25 years ..	1 7 6	501 17 6	629 12 6	1 2 6	410 12 6
,, after 30 years ..	,,	,,	,,	1 5 0	456 5 0
Brig. Surg. on appnt...	1 10 0	547 10 0	675 5 0	1 7 6	501 17 6
,, aft. 5 yrs. in rank..	1 13 0	602 5 0	730 0 0	1 10 0	547 10 0
Deputy Surg.-Gen. ..	2 0 0	730 0 0	876 0 0	1 15 0	638 15 0
Surgeon-General	3 0 0	1095 0 0	1368 15 0	2 0 0	730 0 0

Surgeons and Surgeons-Major retiring after ten years' service, are to receive a gratuity of £1250, after fifteen years' of £1800, and after eighteen years' service of £2500.

Retirement is to be compulsory, as at present, from the executive ranks at fifty-five, and from the administrative at sixty years of age. It is recommended that, as in the case of military officers generally, all medical officers retiring under the age of fifty-five shall be liable to be called up for duty until they attain that age, in case of declared national emergency,—in other words, that they will form part of the Reserve Forces.

With regard to the grievance of medical officers being placed on half-pay after six months' leave granted in consequence of ill-health, it is proposed to extend the period of such leave to one year, and after that time to place them under the same regulations as to temporary half-pay as the other officers. It is proposed to meet the difficulty with regard to quarters for medical officers who are unavoidably stationed in barracks with troops, by allotting a suitable quarter which shall be always retained as the "Medical Officers' Quarter." But it is at the same time suggested, as a proper subject of inquiry, whether there is any necessity for such close personal medical attendance on soldiers as is implied in compelling the medical officer to reside in barracks. We regret to say that the Committee do not recommend the restoration of forage to medical officers, but "think a sufficient number of suitable riding horses should be provided at large stations by the Army Service Corps for the use of officers requiring to be temporarily mounted." They do not say what medical officers are to do at smaller stations under similar circumstances. The Committee have considered at some length the question of honours and relative rank. They point out, with regard to

the first, that the medical officers do not receive a share at all in proportion to the other corps. For instance, the officers of the Royal Engineers, though numerically fewer than the medical, have 35 enjoying the honours of the Bath, the Star of India, and of St. Michael and St. George, while of the medical officers 10 only are thus decorated. With regard also to good-service pensions, 1·5 per cent. of the officers of the Royal Artillery (active and retired) and 1·7 per cent. of the Royal Engineers have received them, while they have fallen to the lot of only ·6 per cent. of the Medical Department. This injustice they recommend should be remedied. They also recommend that the honorary appointment of physician or surgeon to the Sovereign should, as in the case of Her Majesty's Aides-de-camp, carry a step of rank, the officer to be borne as supernumerary until he would have been promoted in ordinary course. With regard to relative rank, it is proposed that the probationer shall rank as a lieutenant, the surgeon on appointment as captain, and the surgeon-major of twenty years' service as lieutenant-colonel, according to the date of commission, instead of being always junior of that rank.

A suggestion is made that, with a view to compensate for the social losses to regimental medical officers at the larger stations, "a medical institute might be established to act as a club, a library, and a scientific resort," Government finding a room, with fuel and light, and contributing a limited annual grant towards the formation of a station library. At smaller stations facilities might be afforded, and encouragement given, for the formation of a mess for the officers of the several departments.

Such is a brief sketch of the principal recommendations of the Committee. They appear, with the exception of the forage question, to be conceived in a liberal spirit, and with a sincere desire to promote the best interests of the service. There is much in the report which deserves study, and we hope to bring several of the subjects treated in it more fully under consideration hereafter. The very short time at our disposal has prevented our entering at present upon these topics, as we felt that our readers would be anxious to know what was recommended rather than to have a discussion on points where we may differ from the Committee. We would merely remark that the report confirms the opinion we lately expressed as to the improbability of the restoration of the regimental system, the Committee remarking upon it: "We look upon that question as having passed beyond the stage of argument, and as not being within the scope of our inquiry." It must not be forgotten that these proposed changes are still merely the recommendations of a Committee, and that it remains to be seen to what extent and with what modifications the Secretary of State for War will be prepared to carry them out. While he has them under consideration the profession will have an opportunity of expressing their opinion whether the Department reorganised on these principles is likely to be deemed an eligible opening for the younger members, and whether, consequently, the object Lord CRANBROOK had in view in the appointment of the Committee is likely to be attained.

IT is a misfortune that the term "work" stands for the thing done or the task accomplished, as well as the act of doing it. There is a regrettable tendency to think less of the process than the result obtained. This mistake is very short-sighted. The workman needs to learn the use of his tools, and the methods of his calling, and the *way* of learning these is in the end as important as the information and skill gained. The student of the medical science will in a signal sense mould his mind and formulate his future as a practitioner by the method he adopts in pursuing the studies of his curriculum. New faculties will be created, and pre-existent powers and functions of the intellect trained and developed; and the direction thus given to his habits of thought and mind-exercise will remain influential to the end. It is therefore of self-evident importance that the culture to which he now submits his faculties should be judiciously directed.

There are almost as many ways of working as there are men who work. This will not be in the least surprising when we reflect that no two minds are identical in construction, and consequently it is impossible that they should take in knowledge in precisely the same fashion. The fact just stated, and which is abundantly evident, explains the failure, and demonstrates the uselessness, of seeking to impose a uniform method of working on any multitude of dissimilarly constituted men. Although the curriculum in vogue has the sanction of use and authority, it is idle to expect to acquire the mass of information indispensable for the successful practice of medicine and surgery by simply fulfilling its requirements. Each student must for himself discover the best method of storing his mind with the knowledge, and obtaining the personal skill, which his future career will require. The curriculum lays down the broad outlines of a course, like the dotted markings on a sailing chart, but how to keep the track must be determined by the individual mariner; and, although it is the custom to sail under convoy, each craft will need to be steered and worked according to its special size and build and sea-going capabilities. Serious and irreparable mischief is not unfrequently done by crowding on canvas, or generally handling a mind that calls for peculiar treatment in too close conformity with some regulation method, which does well enough for many, but will not suit all. The primary, in many senses the most important, business of the student's first session will be to find how best he can perform the task of personal instruction while broadly following the lead given by his teachers and those around him. Unless this duty of forming a plan of work is recognised and discharged thus early by the pupil, his period of study will be troubled, and end unsatisfactorily. It is worth while to spend time and pains in the avoidance of such a calamity.

The problem is to find a means of storing the mind with carefully selected, co-ordinated, and well-placed knowledge. The selection of information is one of the most important functions of an intelligent mind. The man who *learns* on the principle that "all is fish that comes to his net," is likely enough to find that while his memory is overburdened, his stock of assimilated knowledge is essentially small. The capacity of the human mind is naturally great, and, like every other part of the physico-mental organism, it grows by use, but the vital energy available for mind purposes is not boundless, and every foot-pound of force expended in the acquisition of useless knowledge is so much power wasted. Too many men forget this, and cram in all sorts of information on the

chance that a fair proportion of the stock accumulated will prove of value. This reckless procedure is one of the ways in which mind-power is squandered and opportunity lost. The student will do wisely to remember that he has only a limited quantity of force to spare, and everything will depend upon how he employs it. Knowledge must be selected; and this brings us face to face with the difficulty that the eclectic faculty is not, as a rule, well-developed in the youthful mind. It is mainly in this particular the student needs help. If lecturers and teachers would devote especial attention to the sifting of information, and the indication of proper lines of inquiry, they would render more useful aid than by striving vainly to compass the whole field of knowledge. The result of the common mistake of delivering "complete" courses of lectures, and traversing the whole area of a department of science, is that the student can only pick up fragmentary scraps of information at random, and has no practical notion how to piece them together. If teachers would simply point to the subjects that can be studied in private, and so frame their lectures and instruction as to assume and necessitate this personal work on the part of pupils, the progress made at the end of a session would be more real and permanent, if less pretentious, than that effected by the method of instruction at present pursued. Without direction how to select the facts he needs to appropriate, the student is left wandering and bewildered in a field too vast to be explored, and at the close of his curriculum he too often finds, to his cost, that his strength has been expended on the acquisition of a stock of knowledge which, though brilliant and bulky, consists of unconsidered trifles of little or no worth. In this way it comes to pass that a mind wearied with the toil of remembering the minutiæ of botany, materia medica, chemistry, and physiology, is confounded by a simple question in either of these branches, and fails utterly when the test of practical every-day knowledge is roughly applied.

Again, knowledge must be co-ordinated, and this implies that it is acquired with a purpose. Nothing is more mischievous than the notion that any good can come of knowing things which are unnecessary. The really well-trained mind is one that knows how to find the answer to any question which may arise, rather than that which burdens itself with every conceivable commodity in case it may be wanted. "Such and such questions have been asked at examinations, therefore they may be asked again, and I must be provided"! Better make it the business of student days to obtain a masterly insight into the *rationale* of the system of facts, and trust to the logic of reason to supply the details. When the stock of knowledge has been acquired, or while it is being stored, much depends on arrangement. A great error is committed when the student packs his goods with a single eye to the convenience of displaying them at the examination-table. Knowledge should be deposited in the mind with a view to the life-long future, and practical work. The episode of the examination-day is only an incident by the way, and the less it engrosses the learner's attention the more efficient will his education prove.

Lastly, the work required of the student must be performed with a loyal and reverent devotion to those who have laboured and now lead. There is no more deadly and besetting sin of scientific pupilage than the pride of knowledge—the sort of pride which, whether or not it begets vanity, prompts a man to treat those he holds less well-informed or able than himself with discourtesy. The mistakes the best of us are too prone to make about merit should inspire caution in the formation of a judgment. The famous rejoinder, "Sir, I have forgotten more than you ever knew," might well be borrowed by many a member of our profession upon whom his fellows look somewhat contemptuously, and students are tempted to despise. The wise student will be gentle, modest, and respectful to everybody, to his seniors and fellows, and he will be very cautious of forming any opinion of the attainments of others until he has at least made sure of his own. True work has a wondrously humanising effect on the worker, and brings out his better nature; that which does not so react on the mind will probably prove to be false work, and, despite its brilliancy, will fail.

SOME months ago we called attention to an interesting series of investigations on the histology of the process of the union of divided nerves, which elucidated the details of the process by which the adventitial structures of a divided nerve-trunk effect its reunion. The changes which the nerve-fibres themselves undergo in consequence of division, and those by which their repair after injury is effected, have lately been studied with much care by Dr. KORYBUTT-DASZKIEWICZ, of Strasburg, and his observations add considerably to our knowledge of the processes. A few hours after the division of a nerve, an opacity and swelling of its medullary sheath is visible, together with a multiplication of the nuclei of its primitive sheaths. These changes, which constitute the first stage of the well-known process of nerve degeneration, are visible in both peripheral and central ends of the divided nerve-fibres, as far as the first of the constrictions which RANVIER discovered. The process does not pass over this limit, or, if it does, only extends as far as the next constriction. Simultaneously with this change in the nerve-fibres red and white corpuscles aggregate in the neighbourhood of the incision. The latter multiply, and assume an appearance very like that of the nuclei of the nerve-sheath. The nuclei become surrounded by protoplasm, and, in the course of the next few days, form knob-like projections at each end of the nerve, which projections, when the loss of substance in the nerve has been small, ultimately become fused together. The cells which thus bridge the gap between the two ends acquire ultimately a spindle shape, become transformed into connective-tissue fibres, and do not assist in the regeneration of the nerve-fibres themselves.

If the so-called paralytic degeneration goes on in the peripheral end of the nerve, a fresh series of changes commence, consisting in the segmentation of the medullary sheath, which takes place either simultaneously in the entire length of a fibre, or only in parts, now near the wound, now near the periphery. The portion of the fibre affected first presents incurvations which give it somewhat the appearance of an embryonal condition of nerve-fibre. The affected segments break up into globules, which often present distinct concentric striation. If the degeneration progresses further, the outer layer of the globules becomes liquefied, and breaks up into fat-globules, which become distributed more or less uniformly within the old sheath. Wherever the myelin has

thus broken up, nuclei accumulate; whereas at those parts which are still normal no nuclei are to be seen. At the cut end of the nerve it is not difficult to trace the passage of nuclei from the cicatricial tissue into the interior of the sheaths of the degenerated nerve, but it is less easy to trace the origin of the nuclei which are seen within the sheaths of the peripheral portions of the degenerated nerves. It seems, however, legitimate to assume here also that they have wandered in, because cases were repeatedly observed in which white blood-corpuscles passed into the sheaths at the constrictions of RANVIER. However they have entered, the nuclei multiply, at first rapidly, until they have attained a certain number, and then commences their individual development. They acquire distinct contours, assume a rounded form, and nucleoli become visible within them. During the first few hours after the operation, and before the white corpuscles commence to pass in, the fixed nuclei of the wider nerve-sheaths take part in the transformation of the myelin. The nuclei enlarge, a zone of protoplasm becomes visible around them, and into others often pass minute spherules of myelin, blackening with osmic acid.

In the central end of the nerve the changes are different. After the inflammatory degeneration has extended as far as one of the constrictions of RANVIER, a change in the myelin is visible in a certain proportion of the fibres, the number of which increases the greater the loss of substance. Either the medulla assumes a wavy contour, or it becomes liquefied in a segment lying between two constrictions, without the process invading adjacent parts. An increase of nuclei is constantly observed in the latter form of degeneration. After the liquefaction of the old myelin there commences the formation of a new nerve-medulla, with the peculiar appearance that between two former constrictions one or two new ones are formed. The nuclei of the sheath of SCHWANN also undergo changes in the central end. Near the division of the nerve they swell up, become surrounded by granular protoplasm, and, after becoming separated from the fibres, assume an elongated form; whether finally developing to nerve-fibres could not be definitely ascertained. The axis-cylinders in the peripheral part break up into more or less numerous fragments during the segmentation of the medulla, and of these some apparently liquefy and participate in the same changes as the myelin, while others persist and clothe themselves with a new medullary sheath. In some cases the myelin remained upon some fragments of axis-cylinders until regeneration. Before the degenerated myelin began to lessen the fragments of axis-cylinders which persisted began to lengthen in each direction, the nuclei persisting within the sheath began to elongate, and lay at certain distances from each other. Simultaneously with this process, the new medullary sheath made its appearance as a varicose or a uniform deposit upon the axis-cylinder. Thus the fragments of axis-cylinder remaining serve as the starting-point for a new endogenous formation of nerve-fibres. They present no tendency, in their farther growth, to blend with one another, but remain in contiguity, growing in the same general sheath, close to one another, and ultimately, after the disappearance of the old sheath of SCHWANN, they develop as independent fibres. Hence, at a certain time, there is an appearance as of several nerve-fibres in a single sheath. If, however, after the division of a nerve, the axis-cylinder remains intact in its entire length, and the medullary sheath degenerates, the appearance of several fibres in the same fibre-sheath is never seen. If the division of the nerve entails a considerable loss of its substance, the appearance of a multiple endogenous regeneration of fibres is rarely seen, many fibres not being regenerated at all. This segmentation of the axis-cylinder is not the only mode in which the fibres degenerate. The grey fibres, for example, sometimes present no change, and the smaller medullated fibres, regarded as young nerve-fibres, ordinarily only lose their medullary sheath; and, lastly, under certain favourable conditions, most of the fibres, large and small, present only medullary degeneration.

The regeneration of the extremities of the nerves in the muscle and skin occurs much later than the regeneration of the peripheral trunk, as the axis-cylinders of the terminal extremities of the nerves usually undergo complete degeneration. On simple division of a nerve, the adjacent axis-cylinders of the central stump do not degenerate, but grow into the cicatricial tissue, where they become narrowed and clothed with a deposit of young medulla. Attaining the peripheral portion of the trunk, they become wider, and grow into it between the old and the new fibres. The path they take through the cicatricial tissue is evidently that of least resistance, being often sinuous. They often apparently attach themselves to vessels, which afterwards disappear. If the peripheral portion is absent altogether, as in extirpation of a nerve, the fibres growing from the centre commonly either attach themselves to a vessel, or widen out irregularly, or form knobby swellings analogous to the "bulbous nerves" of amputated limbs, which are formed by a convolution of medullated fibres and cicatricial tissue. When the loss of substance has been considerable, the regeneration of the fibres which degenerate in the central end occurs much more quickly than that of those in the peripheral end, but takes place by a similar process.

THE education and training of the ever-increasing number of poor children in our towns and cities is one of the most urgent questions of the day, since on the right solution of the problem it depends whether the present generation of pauper children are to be developed into useful, prosperous, and intelligent citizens, or to remain for ever members of the "sunken sixth," a burden on the rates and resources of the country, perpetual inmates of our workhouses and prisons. Some attempt has already been made to deal with this difficult and important question—chiefly as yet, however, through the channels of charitable enterprise. Still it is satisfactory to find, limited as the attempt has been, that the system of "home and cottage training for the children of the poor" has attracted the attention of Parliament, and called forth a report on the subject. This report, which has been prepared by Dr. F. J. MOUAT and Captain BOWLEY, R.E., is founded upon observations made at such schools as the Princess Mary's Village Home at Addlestone, Surrey, the Home for Little Boys at Farningham, Kent, and other schools of the same class, based more or less strictly on the "home or family system," and intended to bring up destitute or criminal children in habits of religion and virtue, with such industrial and mental training as will fit

them to earn their livelihood in independent positions and to become useful members of society. To judge from the report, the success that has attended the endeavours has been most encouraging. The standard of health in these institutions appears in all cases to be exceptionally good, and the cost of maintenance moderate, averaging from sixteen to twenty pounds per head. The advantages claimed for the "home system" are: "obtaining an exactness of oversight, and a dealing with individual temperaments according to special peculiarities"—in other words, establishing an intimate sympathy and bond of union among the inmates which "reproduces as nearly as may be that home life which is GOD'S grand device for the education, in the best meaning of the term, of the human race." It is evident that such benefits can only be secured by the subdivision of children in small groups, under the special and constant care of a suitable head. In short, the condition of the schools reported on, and the bright and happy life of the inmates, contrast strongly with the state of things at the workhouse schools in the northern, eastern, and midland districts, as shown by the reports furnished by the inspectors. Thus Mr. BOWYER writes, during the long vacation of "Christmas and Midsummer, the workhouse children pass their days within four walls of their day-rooms and yards, in dreary indolence and listlessness only relieved by a formal walk under the guardianship of an industrial trainer or '*respectable inmate!*'" And Mr. MOZLEY remarks: "One of the most defective points in workhouse schools hitherto has been the care taken of the children out of school." In fact, both boys and girls are "frequently superintended by a *pauper alone!*" Mr. MOZLEY, moreover, bears strong testimony to the unfavourable influence workhouse constraint has upon the mental development of the children. "A child normally shut within four stone walls, whatever be the excellence of the appliances within those walls, will be blunted in some of the most progressive faculties of its nature." "I confess," he says, "I should be glad to see workhouse children, especially those that live in the country, able to enjoy an *occasional liberty*, to run about the lanes and streets like other children."

Can the sentences we have quoted really apply to workhouse schools of the present day? Do they not rather refer to the Oliver Twist experiences of thirty years past? Alas! no. Imprisoned within four dull stone walls, with no experiences of fresh open country life and the lessons Nature insensibly teaches, his very hours of play darkened by the shadow of failure and misery in the person of the attendant pauper, without interest in the present or hope for the future, such is the lot of a pauper child at the present moment in a country professing to be foremost in culture, humanity, and civilisation. In the neglect of our duty in properly training and educating our pauper children we have incurred a grave responsibility, and the penalty will be reaped for many years to come in a rich harvest of crime and misery.

DR. H. W. BELLEW, C.S.I., Sanitary Commissioner of the Punjaub, will probably accompany Sir Neville Chamberlain in his expedition to Cabul. Dr. Bellew is well known in India as a linguist and very experienced frontier traveller.

Annotations.

"Ne quid nimis."

THE CASUALTY INCIDENTS OF THE DAY.

THREE leading incidents, all of a specially melancholy character, are just now occupying public attention in a very conspicuous manner. A miserable catastrophe has occurred on the Thames, in the immediate vicinity of the metropolis, resulting in the loss of at least 650 lives. The cities and ports of Central America are being devastated—indeed, well-nigh decimated—by yellow fever; and a fearful explosion in one of the largest coal-mines of Wales has caused the death of 257 persons, besides an enormous destruction of much valuable property.

As regards the *Princess Alice* collision, the number drowned and recovered is reported to be 652. In all those last recovered, decomposition appeared to have advanced with unusual rapidity, and the appearance of most of the corpses was hideous in an intense degree. As far as we have learnt during the past week, there are no precise grounds for stating that the limbs, or any special limb, were found to be much flexed. These observations could only of course have been made during the first two or three days subsequent to the catastrophe, when the evidence of one of our correspondents certainly pointed to the fact that all the limbs of some fourteen bodies (seen by him as they were being taken from the water) were flexed in a very marked degree, the skin being covered with a sort of creamy slime. This latter, it has been suggested, may have been due to the presence of diluted sewage, or of liquid refuse from the Beckton Gas Works, just above which the collision took place. Several so-called disinfectants were used in the dockyard, including carbolic acid and chloride of lime, with, as it seemed to us, very fair success, as far as their deodorising power was concerned. But the signs of unusually rapid decomposition were, on this occasion, conspicuously manifest.

The roll of mortality from Central America has, since we furnished the last brief report, increased with fearful rapidity. No less than 87 deaths occurred on the 10th in New Orleans, and 112 at Memphis, which, for a diurnal rate of mortality, is appalling. And the telegram that we copy from *The Times* reports 115 deaths as having occurred at Memphis on the 10th, and out of 1000 nurses 800 are now ill with the fever.

The British consul at New Orleans telegraphs that he has in his own district 17,000 British subjects registered, that the distress among them is terrible, and that they are compelled to find means through the help of the St. George's Society to bury their dead. Help from abroad is therefore urgently required, both in the city and elsewhere. The latest accounts from New Orleans say that the weather has become warmer, and that on the 16th instant 111 deaths occurred at Memphis, and 23 at Vicksburg. And, as we go to press, 22 deaths are reported to have occurred on the 18th, at Vicksburg, the sanitary condition of Memphis being still very bad.

The system of quarantining has been adopted now as regards inland places, and in some places even the mails from New Orleans are refused a passage. We have, in fact, yet to devise and adopt, for international purposes, some rational system of sanitary surveillance that shall be suitable for such terrible emergencies as that with which we are confronted at the present time. As the commerce between London and most of the infected ports is constant if not considerable, the Port Sanitary Authority has re-issued an official notice, originally published in 1874, warning the masters of vessels that no clothing or bedding should be landed in the dock until due notice has been given to the

medical officer, who will, if necessary, provide for their disinfection or destruction.

There is very little to report as regards the Abercarne explosion. The pumping apparatus is so efficient that no less than 7000 gallons of water are raised by it per minute; and there is no doubt that the fire is out, as a thermometer let down to within twenty yards of the bottom of the shaft (which is 250 yards in depth) registered 65° F. Meanwhile one satisfactory reflection exists in this melancholy trio of calamities, that money is in all cases forthcoming to relieve the survivors and to bury the dead with all proper decency and solemnity. In this matter America and England are very glad to assist each other.

THE TROOPS IN CYPRUS.

RECENT accounts from Cyprus of the health of the troops are not of a satisfactory character. In the first week of September the fever, which had been diminishing in frequency, suddenly began to increase, and, among the men of the Royal Engineers, assumed the form of bilious remittent of a severe type. The number in hospital amounted to 11½ per cent. of the force, but the principal medical officer telegraphed that 25 per cent. of the strength were sick. So far as we can learn, this accession of fever was due chiefly to the unusual heat of the weather, and to the necessity for employing the men on fatigue and escort duty, and on guard over the stores. To this may probably be added the inadequate protection afforded by the tents in which it was necessary to quarter them, and the inferior quality of the food issued. Fruit and vegetables were abundant and cheap, but complaints were made of the quality of meat issued by the Commissariat Department. We are not the least surprised at this prevalence of fever among the troops, considering the circumstances under which they were sent to take possession of the island, without any previous notice, and without time being allowed for making any preparations for the housing and feeding of the men. We trust that with the subsidence of the intense heat, the arrival of huts in which to quarter the troops, and the improvement in the quality of the supplies which may be expected as the facilities of communication are increased, the health of the men may improve rapidly. Before another hot season comes round they ought to be as well housed, fed, and suitably clothed as the troops in any of our colonies. When this is the case we see no reason why they should not be as healthy as they formerly were in Corfu, nor why Cyprus should not become one of the coveted stations of a regiment. In the meantime we understand that the company of the Royal Engineers has been removed from the town, and encamped at a place which has been selected as likely to prove a useful sanatorium. We regret to observe that Sir A. Home, the principal medical officer, has been suffering from an attack of fever himself, but is so far recovered as to have resumed his duties, and we have no doubt he will, in conjunction with Sir Garnet Wolseley, do all that can be done under the circumstances to check the spread of the fever and improve the health of the troops.

LUNACY IN THE METROPOLIS.

OF 60,846 pauper lunatics in England and Wales on 1st January last, no less than 12,420 were rated to the metropolis—that is, to the London of the Registrar-General and the Local Government Board. The proportion of pauper lunatics was equal to 3·5 per 1000 of the estimated population of London, whereas in the rest of England and Wales the proportion did not exceed 2·3 per 1000. Thus, measured by these figures, the proportion of lunacy in London showed an excess of 52 per cent. upon the proportion in the remainder of the English population. Can this be a trustworthy deduction from the figures? Most unhesitatingly we decline to accept it, and rather believe that the metropolitan lunacy statistics afford a clue to the explanation of the much-talked-of alarming increase of lunacy in recent years. The asylum accommodation for lunatics and imbeciles in the metropolis is now far in excess of that provided in any other portion of England and Wales; and few who are acquainted with the class of paupers who are housed at Leavesden and Caterham, and also with the average inmates of workhouses, can doubt that, out of London, a large proportion of the inmates of those two institutions would simply be classed as in-door or out-door paupers. Of the total pauper lunatics in London on the 1st January last, 92·8 per cent. were in lunatic or imbecile asylums, 4·3 in workhouses, and 2·9 per cent. were living with relatives, &c. Out of London the average proportion in asylums did not exceed 64·5 per cent., while no less than 23·4 per cent. were located in workhouses, and 12·1 per cent. resided with relatives, &c. The health and mortality statistics of Leavesden and Caterham are eloquent of the success of those institutions from a humanitarian point of view. They, however, offer fully as conclusive evidence that the existence of these institutions affords the means for transferring thither, as imbeciles, large numbers of the more troublesome and aged paupers from the metropolitan workhouses, suffering, it may be, from senile dementia, or epilepsy, but who, with due regard to the fitness of terms, cannot be classed as lunatics, and scarcely even as imbeciles. So long as the financial management of the metropolitan asylums at Leavesden, Caterham, and Clapton maintains its present success, the cost to the ratepayers scarcely exceeds what it would be if the 4406 inmates had been retained in the workhouses, and the improvement in the health-condition of the inmates since their removal from the workhouses is beyond question. It is, however, quite untrustworthy to attribute the remarkable growth of asylum population in the metropolis in recent years to increase of lunacy. Should the extra-metropolitan counties ever be stimulated by the success of Leavesden and Caterham to provide joint institutions for the inmates of the various workhouse insane wards within the counties, we must be prepared to see a much further increase in the recorded number of our pauper lunatics, but this will not necessarily signify an increase of lunacy. At the same time, it appears eminently desirable, in order to secure uniform and scientific certification, that all paupers classed as lunatics or imbeciles, whether in asylums, or workhouses, or residing at home with relatives, should be brought equally under the control of the Lunacy Commissioners.

PUBLIC HEALTH AND THE BOULOGNE HARBOUR.

THE daily papers have described at great length the laying of the foundation-stone of the new deep water harbour, which will, when completed, enable Boulogne-sur-Mer to shelter a large fleet. Undoubtedly this is a great enterprise, and we wish our neighbours every success; but we would suggest that this ought not to interfere with the great sanitary works so much needed at Boulogne. Two years ago we appointed a commission to report on the health of this town, and we then found that though the average death-rate was stated to amount to 22·5 per 1000, the death-rate of 1874 and '75 equalled 24 per 1000; in other words, a seaside watering-place, with a population of under 40,000 inhabitants, showed a higher death-rate than London, "where green fields are things to read about, and where no fresh sea breezes bring purity to the atmosphere and strength to the population." There were two principal causes which contributed to bring about this lamentable state of affairs; the one was the insufficient water-supply, amounting to only four gallons per head per day, and the other was the want

of proper sewers and drainage. It was proposed, however, to bring water from a distance of twenty kilometers, at a cost of £48,000, and £32,000 were to be spent on the construction of a complete system of sewage, with an outfall situated between the two piers at a point where it would always be covered with water, and where the sea-currents, it was stated, would invariably carry the sewage away. The new port must, of course, entirely destroy this scheme, and we are surprised to find no mention of some other and more appropriate method of dealing with the sewage of the town. The new port will add considerably to the population, traffic, and consequent dangers to public health; these sanitary works are, therefore, more than ever necessary, and should not be neglected any longer.

FEVER AS A CAUSE OF DEATH IN BRISTOL.

IN his report on the sanitary condition of Bristol during the three months ending June last, Mr. David Davies, the medical officer of health, takes very decided objection to the way in which deaths in that city are referred to "fever." He reports that during the quarter 20 deaths were referred to fever in Bristol, but expresses his firm belief that more than half these deaths were "not due to any specific fever, but to other causes." He asserts that these other causes included pneumonia after bathing, acute inflammation of the membranes of the brain, &c., although they were "returned as fever by the medical attendants, owing to some peculiar pathological views." Mr. David Davies objects to the deaths of children certified as from "fever, convulsions," and "fever, coma," of which he quotes five cases, being debited to his city as fatal cases of fever. It could certainly be wished that fatal cases of fever were, for sanitary statistical purposes, more precisely defined, but the medical officer of Bristol can scarcely be unaware that the Registrar-General's heading "fever" includes the three sub-headings, typhus fever, enteric or typhoid fever, and simple continued fever. Cases of infantile remittent fever are classed with enteric fever, and those certified indefinitely as fever are classed with simple continued. Mr. David Davies asserts that in half the fatal cases of fever in Bristol the "returns were erroneous in statement, pathologically worthless, and, as forming a component of the public records of the country, misleading to the public." When one finds the Bristol medical officer differing on this point from so many of his professional brethren, doubts naturally arise as to whom the "peculiar pathological views" belong.

THE USE OF ETHER WITH COD-LIVER OIL.

IN a recent number of the *New York Medical Journal* we notice a report by the Committee on Restoratives of the Therapeutical Society of New York on the above-mentioned subject. We quote the following extracts:—"In 1868 Dr. Balthazar Foster read a paper before the Medical Section of the British Medical Association 'On the Use of Etherised Cod-liver Oil in Phthisis.' Referring to the experiments of Claude Bernard, by which it was shown that ether is capable of augmenting the secretion of the pancreas to a remarkable degree, he had reached the conclusion that this discovery opened the way to a great advance in the treatment of phthisis. The defective assimilation of fats being the leading feature in the dyspepsia of phthisis, and this depending upon want of action of the pancreas, it was a clear inference that any agent which would increase the pancreatic secretion would be a valuable adjunct in the treatment of these cases. Moreover, Bernard found that ether promoted absorption independently of the emulsifying action of the pancreatic juice, and thus a double aid was to be expected from its use. Accordingly, Dr. Foster administered ether with cod-liver oil to a large number of patients, and preserved careful notes of the results. These results more than justified his expectations." "It seemed desirable," to the Committee, "that more experience upon this point should be accumulated." After pointing out important sources of fallacy, "the report covers thirty-one cases in which ether was given in connexion with cod-liver oil. In twenty-six of these cases the combination was well borne. In five of them it was not well borne. Of the twenty-six cases in which oil with the ether was well borne, it was noted in twenty-four cases that either pure oil or an emulsion of oil had been tried, and had disagreed. In one case, plain oil was found to agree better than the mixture with ether, and in another case the etherised oil did not answer so well as an emulsion with hypophosphites. The ether was given *with* the oil in twenty-two cases; after the oil—fifteen to thirty minutes—in nine cases. Of these nine cases three had tried, unsuccessfully, to take the ether *with* the oil, but exhibited perfect tolerance when the ether was given *after* the oil. The results in this limited number of cases seem to sustain the conclusions of Dr. Foster in a remarkable manner. But it is very important that we should have a larger number of cases, extended over a longer period of time, and bearing upon the question of the better assimilation of the oil, and therefore of its greater ultimate usefulness, as well as upon its greater present tolerance. And it is especially important that unsuccessful cases should be reported as invariably and as carefully as those which support the claims of the medicine. Your Committee are already engaged in collecting material for a second report, to which this one is only preliminary."

THE WATER-SUPPLY OF HENLEY-ON-THAMES.

THE authorities of Henley are bestirring themselves on the subject of the water-supply of the town, and, very properly desiring to obtain the fullest information, they have recently consulted Dr. Hassall on the question.

It appears that Henley, a town of some 5000 inhabitants, possesses no regular water-supply, but obtains its water from a series of wells, many of them of very little depth. In the poorer districts one well supplies several cottages and houses, the wells being in many cases surrounded by closets and cesspools. Notwithstanding the objectionable situation of the majority of the wells, out of the seventeen waters submitted to analysis, no less than fifteen were found to be fairly pure and wholesome waters, the other two being polluted, one of them so much so as to be unsafe for drinking. These results are certainly much more favourable than under the circumstances might have been expected, but Dr. Hassall warns the authorities that they must not place too much reliance on them, since in the course of time and with increase of population a gradual deterioration of the soil and water must be looked for. He also points out the danger which may at any moment arise from pollution of the waters, especially with the excreta of persons suffering from typhoid fever, as many of the wells lie almost at the doors of the cottages, which in some cases are without proper drainage. Should this occur in the case of any one of the wells in question, the disease would be certain to be propagated, at least to the neighbouring cottages, whose inmates make use of the same water.

Dr. Hassall also dwells upon the labour involved in such a water-supply, which compels the cottagers to draw the water once, or at most twice a day, and to store it in pans, tubs, and other unsuitable and sometimes uncleanly vessels, whereby its quality suffers greatly. The free and abundant use of water, so requisite for health and cleanliness, is of course much discouraged by such a laborious and intermittent system of supply.

We observe that in the discussion which ensued in the

reading of Dr. Hassall's report, one of the speakers, while accepting the fact of the comparative purity of the water examined, characterised the remainder of the report as theoretical; but it is well that the authorities of Henley should know that the pollution of water from the excreta of typhoid and cholera cases is of frequent occurrence, and that the propagation of those diseases has been very frequently traced to the use of such polluted waters. This is no theory, but fact, founded upon repeated and most painful experience.

TYPHUS OR TYPHOID FEVER.

IT seems almost incredible that there should now be any confusion between the terms typhus and typhoid fever, and yet the returns of the Registrar-General are continually suggesting that such is still the case. In his last Weekly Return the Registrar-General reports that during the week ending 14th instant five deaths in the metropolis were referred to typhus fever, and, according to practice, the precise localities of the five fatal cases are noted. The five deceased typhus fever patients had resided in Tachbrook-street, Belgravia; Belsize-crescent, Hampstead; Queen's-crescent, Kentish-town; Prince's-court, Bethnal-green; and Cornwall-place, Lambeth. It has been conclusively proved that the liability to typhoid or enteric fever has a distinct relation to the number of communications between houses and the sewers; hence, relatively, large houses of the better class are more liable to infection from enteric fever than small houses, which often have no interior sewer communications. The communication of typhus fever by means of sewer gas is, however, unknown, and reported cases of typhus fever in such houses as Belsize-crescent, Hampstead, although possible as the result of contagion, suggest the probability of mistaken diagnosis. Not long ago, Dr. Dudfield, medical officer of health for Kensington, called attention to confusion of diagnosis between typhus and typhoid fevers in his district, or more probably to confusion of terms; and it may be hoped that other medical officers of health will call attention to any similar cases that may come under their notice. On account of the similarity of names for two such distinct diseases, it would be desirable that, in medical certificates of the cause of death, the more modern term—enteric fever—should in future be substituted for typhoid fever. Specially undesirable is the use of the word typhoid, in these certificates, in a sense to signify a low adynamic type of disease, which may lead to error of nosological classification.

HOMICIDE IN THE LONDON STREETS.

ON the authority of the Chief Commissioner of Metropolitan Police it has been recently very currently reported that during last year 120 persons were killed in the London streets, and that 2836 were more or less injured. Unfortunately, these figures very inadequately represent the killing and maiming caused by street accidents within the metropolis during 1877. Colonel Sir Edward Henderson's statistics are gravely misleading for two reasons. In the first place, in police parlance the City (which has a police of its own) forms no part of the metropolis; and, secondly, the police only report what they see, and many people are inconsiderate enough to be run over without the assistance of the police, and thus are not reported. Further, it may also be reasonably presumed, from the following figures, that many of those reported as injured are removed to hospitals, where, in course of time, some are in fact added to the list of "killed in the streets," after they have been reported at Scotland-yard as merely injured. If we really want to know how many persons were killed last year in the streets of London, instead of how many were killed under the eye of the police, we must turn to the Registrar-General's Annual Summary for London, published a few months ago. There we shall find the number of street homicides reported as 227, instead of 120 as given by the Chief Commissioner of Police. During the eight preceding years, 1869-76, the number killed in the streets of London averaged 211, and ranged from 192 in 1869 to 231 in 1875. The number of fatal street accidents do not vary much from year to year; they, however, slowly and steadily increase. The average annual number, which was 207 during the six years 1869-74, rose to 225 during the three most recent years. Of the 227 persons killed in the streets in 1877, 97 fell victims to vans, drays, and waggons, 56 to carts, 26 to cabs, 13 to omnibuses, 13 to carriages, 4 to tramcars, and 16 to horses. The principal increase in the fatal street accidents in London in recent years appears to have been caused by heavy vehicles classed as vans and waggons. The returns for 1877 show a marked decrease in the fatal accidents due to tramcars, which were but 4, whereas they had averaged 13 in the four preceding years. The number of injuries caused by street accidents reported to the Registrar-General by the Metropolitan and City Police as occurring within registration London in 1877 was 3107, of which 2550 were reported by the Metropolitan and 557 by the City police. Seeing the serious deficiency in the police figures of fatal accidents, there is every reason to believe that those purporting to show the number of injuries are fully as inaccurate. Anyway the police figures give a very insufficient idea of the deaths and injuries due to street accidents in London during last year.

UNQUALIFIED MEDICAL PRACTITIONERS IN NOTTINGHAM.

NOT very long ago the Registrar-General called attention to the large proportion of uncertified causes of death in Nottingham, and the medical officer of health, Dr. Seaton, reported to his sanitary authority, the Town Council of Nottingham, that this was mainly due to the practice of unqualified practitioners in Basford. It was, moreover, reported that some of these unqualified practitioners were nominally acting as assistants to qualified practitioners in charge of "branches." It is with satisfaction we learn that one of these irregular practitioners was recently convicted at the Town Hall, Nottingham, of having "unlawfully and illegally given a certificate or declaration under the Births and Deaths Registration Act," and was fined £5, or in default one month's imprisonment. We regret to find that a local registered practitioner appeared to have given the prisoner a colourable pretext for practising under his name, which was affixed to the prisoner's house. The bench signified their disapproval of this *quasi* alliance between the registered and the unqualified practitioner by refusing the expenses of the former as a witness, on the ground that "he had to a certain extent tolerated his name to be up, and not done all in his power to have it taken down." We are glad to learn that the proportion of uncertified causes of death in Nottingham is now rapidly declining.

DISLOCATION OF THE ATLAS.

AN interesting case of supposed luxation of the atlas is recorded in Von Langenbeck's *Archiv*. A bilateral dislocation of the atlas occurred in consequence of a fall, the right articulation being displaced forwards, and the left articulation backwards. The left half of the tongue was paralysed, the right contracted into a curve, with the concavity outwards, whilst the left presented a convexity outwards. The left half of the palate and the left glosso-palatine arch were paralysed, the uvula being curved to the right. Common sensibility and the sense of taste were present on the anterior third of the tongue on each side, and also on the left middle and posterior third, while on the right middle and posterior third no evidence of common or

special sensibility could be obtained. The authors refer these symptoms to paralysis of the right glosso-pharyngeal nerve and the left hypoglossal nerve, and of the left pharyngeal plexus. They show, on a preparation on which the same dislocation was artificially produced, that (1) the glosso-pharyngeal nerve must have been tightly stretched over the portion of the atlas which was displaced forwards, immediately after its exit from the foramen jugulare; that (2) the roots of the hypoglossal within the spinal canal appear like a pair of tightly-stretched threads, while they normally run slackly against the dura mater. In the same manner, and on the same side, the spinal accessory nerve becomes torn, to which the paralysis of the left half of the palate was probably due, since it can only be explained by supposing that the pharyngeal plexus, which the anterior twig of the spinal accessory nerve helps to form, suffered when the nerve-trunk was torn; (3) the narrowing of the spinal canal is not sufficient to cause a compression of the medulla oblongata. The vertebral artery would also escape. The disturbance of taste renders it probable that the glosso-pharyngeal nerve confers the sense of taste on the posterior two-thirds of the tongue only, and indicates the dependence of taste in the anterior third on the lingual branch of the fifth. The dislocation was not reduced, but the patient gradually obtained a freer movement of his head, and the paralysis of the tongue and palate also lessened.

MACCLESFIELD INFIRMARY.

A CASE of "Death from Misadventure," took place at this infirmary a fortnight ago, which reflects unfavourably upon the management of the institution. Through mistake—whether grossly careless or not we will not say, but nevertheless through mistake—a liniment of aconite and chloroform was injected into a knee-joint, instead of a solution of iodine and water, and the patient soon died with all the symptoms of poisoning. It is difficult to apportion the relative shares of blame, but the investigation at the coroner's inquest revealed a laxity of administration highly reprehensible. The prevalent feeling among the jurors seems to have been that the error might have been avoided if the dispensing had been more carefully conducted. It seems that, in consequence of the labels "running out," an "injection" label was put on a "liniment," and that, misled by this, the house-surgeon used the contents of the wrong bottle. The jury recommended that a cupboard should be kept in the wards in which medicines should be placed after use instead of being left in a rack on the table. But more than this is required. A register of every prescription should be kept in the dispensary, and a copy of the prescription should be attached to every bottle, with the name of the patient and the character of the medicament clearly and legibly written.

UNIVERSITY OF LONDON.

THE following announcement has just been made:—

"A new Supplemental Charter having been granted to the University a few months since, on the joint application of the Senate and of Convocation, empowering the Senate to admit women to graduate in its several faculties (Arts, Science, Law, Medicine, and Music), on such conditions as the Senate, with the concurrence of the Home Secretary, should deem expedient, the Senate lost no time in passing a resolution which made all the existing regulations, relating not only to graduation, but also to the various honours and rewards granted at the several examinations, open to female as well as to male candidates. This resolution having been now approved by the Home Secretary, female candidates will be admitted forthwith to the Matriculation Examination; and all such as have already passed the General Examination for Women will be considered as having matriculated, and will be admissible (after the required interval) to the First Degree Examination in either of the Faculties. Further, with a view to the special encouragement of female candidates desiring to go through a regular academical course, the trustees of the Gilchrist Educational Trust have instituted two exhibitions, one of £30 the other of £20 per annum, tenable for two years, to the female candidates who pass highest in the honours division at the Matriculation Examination; and two exhibitions, one of £40 the other of £30 per annum, tenable for two years, to the female candidates who pass highest at the First B.A. Examination (provided that they obtain in the first case two-thirds and in the second three-fifths of the total number of marks), to assist them in pursuing their studies at some collegiate institution approved by the trustees; with the further reward of a gold medal of the value of £20 (or of a book-prize of the same value) to the female candidate who passes highest at the Second B.A. Examination, if she obtains not less than two-thirds of the total number of marks. These rewards are quite independent of those granted by the University, and may be held in conjunction with them."

Thus begins a crucial experiment in social economics, the progress and issue of which all thoughtful persons will watch with anxiety and interest.

THE METROPOLITAN POLICE.

MR. TIMOTHY HOLMES, chief surgeon to the Metropolitan Police force, shows, in the annual report recently published, that out of a total strength of 10,446 men of all ranks, 9558 cases of sickness occurred, 45 of which proved fatal while actually under the care of the divisional surgeons. A total of 329 were pronounced unfit and resigned, 324 were granted sick leave, and the average daily number of sick throughout the year was 320·2, of whom 268·7 were on the sick-list, 38·8 on sick leave, and 12·7 undetached. The "injuries" list shows a total of 580 cases, exclusive of 161 men who suffered from sore feet. The chief diseases of exposure were rheumatism, coryza, bronchitis and tonsillitis, affecting 2635 men, March showing the maximum and June the minimum, number of cases. Fifteen fresh cases of small-pox occurred in the force, two having been left over from last year. Fourteen were returned as suffering from venereal diseases, which probably represents less than the actual number, as there are special motives for concealment. So-called "detached" leave is granted to three classes of cases:—1. Those hopelessly ill, but retained in the service from compassion. 2. Those injured on duty with fractures of the lower extremities, and other injuries that cannot be repaired during the ordinary terms of leave. 3. Those labouring under obscure diseases in which time is required to test their future efficiency. The percentage of 3·0 as the average daily number of sick shows a practical decrease as compared with previous years; indeed, the conditions of sickness and invaliding in this force have hardly varied at all from those of the last few years. Some brief particulars as to the sanitary state of the metropolitan common lodging-houses were given in THE LANCET of the 7th inst.

THE ADMIRALTY OFFICES.

THE changes that have been in progress about Spring-gardens in order to consolidate the Admiralty Department are now almost complete. But the *United Service Gazette* characterises the mass of buildings as a sort of rabbit warren, and indicates that the sanitary arrangements are far worse than those of the War Office before the alterations in the latter building were made. We shall see. The conversion of a congeries of private houses into a large public office does not usually savour of success.

OUR correspondent at Birkenhead writes:—"The Welsh National Eisteddfod, for which this town has been making preparations for some weeks past, was heralded on Monday, in Birkenhead Park, by a brief ceremony, when the opening of the Eisteddfod on the morrow was formally proclaimed. The first meeting of the four days' festival commenced

shortly before noon on Tuesday, the Mayor of Birkenhead (Mr. John Laird) and the aldermen and councillors of the borough going in procession from the municipal offices to the pavilion. Mr. Osborne Morgan, M.P., presided, and delivered the inaugural address. The pavilion, specially constructed under the direction of the Eisteddfod committee, is simply a large wooden shed, and measures 230 feet by 130 feet, the height at the groin of the roof being 60 feet. It possesses seating capacity for about 8000 persons, is well ventilated and lighted, and amply provided with sanitary conveniences. There are no less than seventeen entrances. The site occupied is well suited for the purpose, as the building stands in the middle of a large field, and in close proximity to the railway-station and the ferry. As, despite bad weather, the great national festival of our neighbours has brought crowds of excursionists to the town, it is pleasant to be able to report that the health of the district is almost unexampled. Indeed, since the abatement of the epidemic of typhus in the early part of the present year the locality has been singularly free from zymotic disease."

ON Wednesday, the 11th inst., at the Birmingham General Hospital, Mr. Jolly tied (antiseptically) the right common carotid for a soft, compressible, pulsating tumour of the orbit, coming on suddenly, disorganising the eyeball, having well-marked transmitted pulsation communicated to the frontal and temporal vessels, and great congestion of the parts around, but with entire immunity of all brain symptoms or disturbance of the cerebral circulation. After the vessel was secured, all bruit in the tumour ceased for some time, but has since recurred, though not nearly so loud, and the pulsation is scarcely perceptible. The woman has not suffered any local or constitutional disturbance, and is recovering rapidly.

ON Friday last the master of the ship *Cockin*, now lying at Greenock, was charged with two breaches of the Merchant Shipping Act. 1. With not entering the illness of certain of his crew in the log. 2. With not serving out a sufficiency of lime-juice during the voyage to and from Java and Great Britain. The prosecution was conducted by the Board of Trade, and as the result the master was fined mitigated penalties with costs. Scurvy had appeared among the crew; one man at least had died from the disease, and several were ill from the same malady when the vessel arrived in the Clyde.

THE Scotch Dental Education Committee and the Directors of the Edinburgh Dental Dispensary have conjointly leased the premises, 18, Brown-square, Chambers-street, Edinburgh, for occupation as a Dental Hospital and School of Dentistry. It is expected that the dispensary or operative department of the school will be in working order in November, so as to enable the institution to begin the dental session simultaneously with the medical schools.

ON the 5th inst. an election took place for six examiners to examine candidates for the diploma in Dental Surgery of the Royal College of Surgeons in Ireland. About a dozen gentlemen competed, Messrs. Richardson, Stoker, O'Grady, Sherlock, Pearsall, and Stack being successful, the three first-named being already members of the Surgical Court of Examiners. Upwards of fifty candidates presented themselves on the 7th and succeeding days.

AT an inquest held at Leeds on Monday a verdict of "Wilful murder" was returned against Hezekiah Thornton, a notorious Bradford herbalist, for causing the death of Margaret Allison by the violence he used in procuring abortion.

WE regret to announce the death of Mr. John Hilton, F.R.S., at his residence, Hedingham House, Clapham, in the seventy-fourth year of his age. The funeral took place at Norwood Cemetery on the 19th inst. Our obituary notice of the eminent surgeon will appear next week.

THE Port Sanitary Committee have recently provided for the use of their medical officer and his staff a new steam launch, built by Messrs. Harvey and Co., of Wivenhoe. She is said to be the best craft of her class on the river, and well worthy the attention of those who want a vessel of this kind for real work.

WE regret to learn that cholera has broken out at Allahabad, Bareilly, Shajehanpore, and other stations; at Allahabad and Shajehanpore among European troops, at Bareilly among native cavalry. It is hoped that the disease is sporadic. The married quarters in which the disease broke out at Shajehanpore are described as low, damp, badly ventilated, and badly situated.

THE death is reported of Dr. J. J. Poett, assistant colonial surgeon, on the 21st ult., at St. Lucia, West Indies, after a few hours' illness. The deceased, formerly of Dublin, had been in the colony about four years, had secured a large practice, and has left a wide circle of friends to mourn his loss.

THE King's College Hospital Old Students' Dinner is announced to take place in the Inns of Court Hotel on October 1st, at 7 P.M., Professor Henry Smith in the chair.

The Lancet Analytical Commission.

REPORT
ON THE
FOOD PRODUCTS
EXHIBITED IN THE
FRENCH AND ENGLISH DEPARTMENTS
OF THE
UNIVERSAL EXHIBITION OF PARIS.

No. III.

As might be supposed from the extensive cultivation of the vine in France, and the consequent abundance and cheapness of wine and alcohol, a great variety of *spirits* and *liqueurs* are manufactured. Nearly every fruit and vegetable substance having sensible properties of taste or smell are brought into requisition in their preparation, and even in some cases where neither the taste nor smell is particularly inviting. Thus, there is the "Absinthe," of evil reputation, which is so largely consumed in France, made from wormwood—*Artemesia absinthium*; and the "Vermouth," prepared from the same plant, and the reputation of which is consequently equally bad.

Amongst the latest productions of this kind is "Eucalypsinthe," which, we are given to understand, is fast becoming much used, and is to be seen already in many of the cafés in Paris. It is a spirit made from the blue gum, *Eucalyptus globulus*, the smell and taste of which it possesses in a very marked degree. The sample of this liqueur which we examined was manufactured by Messrs. Bessède et Fils, of Marseilles. When a small quantity of it was mixed with water, the latter became white and opalescent, from the deposition of resinous matter contained in the preparation. It is claimed for it that "the Eucalypsinthe is a drink not merely hygienic in the highest degree, but also

aperient, febrifuge, alterative, refreshing, tonic, and digestive; economical and agreeable." What more could be desired? We only demur on the present occasion to the word "agreeable," and would merely observe that a person in health scarcely requires a drink possessing so many active, even if valuable qualities, the catalogue of which we have not, however, as yet exhausted. Eucalypsinthe "quenches thirst, rouses appetite, facilitates digestion, and awakens the intelligence and the memory by producing a general feeling of health"! Eucalypsinthe in taste and colour resembles absinthe—that is to say, it is equally abominable; but hear again the eloquent author in its praises, "The first glass surprises, the second pleases, the third conquers."

Mons. Callard Jeune et Cie., Lyon, exhibit different liqueurs, amongst them a "Prunelle."

Messrs. E. Cusenier et Cie., Orleans, exhibit a considerable variety of liqueurs, some of much interest, and many of which, through their kindness, we have had the opportunity of examining. The principal are the following: "Curaçe triple sec," "Curaçe sec, Dubb orange, Amsterdam," "Curaçe doux," "Crême de Menthe glaciale," "Crême de Cacao Chuova à la Vanille," "La Prunelle," "Liqueur Cusenier," "Soda Cusenier," "Kava de Vichy," and "Kummel." It will be observed that this list contains several novel liqueurs. Passing by the three curaçes, which are really very good, we notice the Crême de Menthe, which possesses a strong odour of the peppermint, and is of a brilliant sap-green colour; this, the inventor states, is derived entirely from the fresh leaf of the mint. This liqueur is pleasant to the taste, and forms an excellent stimulating tonic, suitable in cases of flatulency. La Prunelle, a favourite liqueur in France, is flavoured with the kernel of the wild plum which grows so commonly in our hedges, and is better known by the name of the black or prickly thorn. The flavour is pleasant, resembling very much that of other liqueurs prepared from the kernels of fruits. Of Liqueur Cusenier it is only necessary to remark that it is one of very special composition and flavour, possessing considerable strength, and capable of acting as a powerful stimulant. The Soda Cusenier is of a bright raspberry-red colour. Used like a syrup, with the addition of some aerated water, it forms an exceedingly agreeable drink, and if the latter contain any soda the effervescence becomes extremely brisk owing to the fruit acid contained in the liqueur. We come now to notice a liqueur called Kava de Vichy; it is perfectly colourless, and the bottle containing it is thickly coated with a white crystalline crust, which gives it a very peculiar and attractive appearance. We find that this crust consists of sugar, which has assumed a beautiful crystalline form. This liqueur is very strong, and of a marked and special flavour. The last liqueur to notice is Kummel. One of the principal flavouring matters contained in this is, as the name implies, "carraway." This liqueur was originally Russian, and made at Riga. Like the Kava, it is colourless, and the bottle is coated with a still more beautiful crystalline crust, which in like manner consists principally of sugar. This liqueur is also a powerful tonic, and anti-flatulent. These several liqueurs are evidently prepared with very great care, and will doubtless still further improve by age. The taste displayed in the shape of the bottles, in the form and execution of the labels, and in the securing and sealing of the liqueurs, is particularly noticeable.

Mons. A. Demay, of Bordeaux, exhibits a bitter called "Bitter Demay."

The liqueurs next in order to be noticed are those of Mons. Desiré Taillandier, of Tours. This maker exhibits "Curaçe Triple Sec," a liqueur called "La Tourangelle," and "Crême de Cacao." Each of these deserves a short special notice. The Curaçe is a combination of alcohol with the bitter principle and volatile oil of the Seville orange. It is therefore a very natural mixture, and one possessing agreeable and useful stomachic properties. La Tourangelle is a liqueur between Chartreuse and Raspail. Lastly, the Crême de Cacao is compounded of alcohol, the volatile principle of cocoa, and a flavouring of vanilla. It also forms a very wholesome liqueur, and, in our judgment, the nicest and most delicate of all the liqueurs that are made. Of these three samples—all excellent—we greatly prefer the Crême de Cacao for its mildness and delicacy of taste and smell.

Messrs. Détang, whose distillery is situated near Beaune, are the makers of the liqueur called after the name of their estate, "La Petite Chartreuse," and also of "La Prunelle." Of the former, Messrs. Détang say that it has "fait le désespoir" of all other manufacturers of the same liqueur. We have examined it, and find that it is really very excellent and moderate in price. The Prunelle is also of very good quality.

Mons. E. Dourlent, Paris, distiller of liqueurs and brandies, has a "Specialité d'Absinthe." We regret that M. Dourlent did not afford us the opportunity of examining a sample.

Messrs. Fourgeaud-Lacoste, of Perigueux, exhibit, amongst other things, an "Elixir des Vosges," or Liqueur de Pin, which is, in fact, the speciality of the firm. "This Elixir derives its name from its principal base, which is the pine. It is exclusively composed of resins derived from the careful distillation of the pine buds of the Vosges, of the pollen of the maritime pine, and of certain other resinous substances, which, combined in proper proportions, make an excellent stomachic liqueur." It will be observed that this liqueur bears a general resemblance in its resinous character and composition to the analogous product derived from the Eucalyptus globulus, and which we have noticed under the name of Eucalypsinthe. It is specially recommended in catarrhal affections, principally those of the chest. Preparations made from the pine seem to be in high favour in France, and we believe there are some other makers of a similar liqueur.

Mons. V. Fauconnier, of Hesdin, is well known as the manufacturer of "Texa du Perou," of "Texine," and of "Vin de Quinquina." The Texa is a mixture of wine, herbs, and quinquina calisaya; texine has a somewhat similar composition, while that of the vin de quinquina is sufficiently expressed in its name. The Texa is a light, agreeable, aromatic tonic, well calculated to promote appetite, neither too bitter nor too alcoholic. The Texine is a stronger preparation, and differs from the former in flavour and smell, owing to its admixture with more herbs and flavouring substances. This, like the Texa, taken either before or after meals, would act as a tonic and digestive.

Mons. P. Garnier, of Enghien-les-Bains, exhibits liqueurs which he has named "Abricotine" and "Fleur de Thé."

Another exhibitor in this class is Mons. Ghesquier-Bouisset, of Lille, a very old-established house. He exhibits "Sweet and dry Curaçe" and "Anisette," but his special products are three varieties of "Liqueur de Flandre," white, green, and yellow. The white is described as being less strong than either the green or yellow, and it is stated that it may be offered without danger to ladies or children. It has a very peculiar flavour and scent which many may like. It is certainly far too strong for children, and we fancy there are few women who would care to drink so highly alcoholised a liqueur. The yellow Liqueur de Flandre is described as a liqueur for the table and for dessert; it is spoken of by the inventor as the "digestive par excellence et le plus agréable," and that nothing will better crown a good repast than a glass of this liqueur. The green variety is the strongest of all, and possesses in a more marked degree the odour and taste which characterise the white liqueur, and its action is, no doubt, that of a powerful stimulant. The last preparation we shall notice exhibited by Mons. Ghesquier is a liqueur which he styles "Elixir Végétal." This is a very powerful combination, and, according to the inventor, exercises a sovereign action, and produces immediate relief in cases of indigestion, colic, faintness, syncope, &c.

Mons. L'Heritier-Guyot, of Dijon, exhibits samples of "Crême et Jus de Cassis." These preparations are made from a species of black currant, *Ribes nigrum*, the fruit of which attains great perfection as grown on the hills near Dijon, especially Fixin, Chambertin, and Vougeot. The Crême de Cassis has somewhat the colour and taste of black currant, but with a milder, more aromatic, and less astringent flavour. This liqueur is said—and one can well believe it—to be serviceable and particularly strengthening in affections of the throat, doubtless partly owing to its astringency. It is taken sometimes alone, diluted with water,

or, still better, in some aerated beverage; in this latter form it makes a very pleasant and refreshing drink, to be preferred in some cases, particularly in cold weather, owing to the alcohol it contains, to the fruit syrups which are so much used, especially in summer, in France. The sample of Crême de Cassis de Dijon we examined possessed a pleasant odour, with a rich and fruity taste, and may certainly be pronounced to be of excellent quality. The Crême de Cassis de Vougeot, made from the fruit grown on the hill of that name, is less sweet, and possesses more astringency; the *jus*, or juice, is free, or nearly so, from added sugar, and possesses in the most marked degree the aroma, taste, and astringency of the fruit from which it is prepared.

Messrs. Naltet, Menaud et Fils, of Chalons-sur-Saône, exhibit a liqueur called "Prunelle de Bourgoyne," and which is, doubtless, manufactured essentially in the same manner as other liqueurs bearing the same name.

Mons. Rouvière, of Dijon, is also an exhibitor of preparations made from Cassis—viz., "Crême de Cassis" and "Fleur de Cassis." The latter, through the kindness of Mons. Rouvière, we have also had the opportunity of tasting and examining, and we find it to possess in a high degree the odour and flavour of the fruit and to be of excellent quality. The combination of alcohol with the juice of Cassis is a very natural one, and it forms certainly one of the most wholesome of liqueurs.

Mons. Vialla, of Grenoble, manufactures and exhibits a "Bitter Hygiènique." This we have not had the opportunity of examining. It is curious to observe in nearly every prospectus relating to the spirits and liqueurs, many of which we have noticed in this article, that they are all described as eminently "hygiènique," the same term being applied to tea, coffee, wines, brandy, liqueurs, and even absinthe itself.

Mons. Vrignaud, of Luçon (Vendée), a very old-established firm, dating three generations back, exhibits a variety of liqueurs, of which it will be necessary to notice in detail only the more remarkable. Amongst the exhibits are "Crême de Cacao à la Vanille," "Curaço triple sec jaune," "Anisette supérieure," "Cassis de Vendée," "Bitter Vrignaud," "Liqueur Hygiènique," "Elixir Vrignaud" (Chartreuse Jaune), and, lastly, three liqueurs prepared especially for the Exhibition, "Watermint," "Café Liqueur," and "Sirop Algérien." The Crême de Cacao possesses a very delicate aroma and flavour; the Cassis de Vendée has very much the full fruity odour and taste of the similar productions of the Cassis of the Côte d'Or. The Liqueur Hygiènique is identical with the well-known Elixir of Raspail. The Watermint is a mild liqueur, smelling and tasting strongly of the mint; the Anisette is of a similar character, and both these liqueurs would be useful in cases of mild flatulent dyspepsia and colic. The Café Liqueur has the odour and taste of coffee in a very marked degree, and while Crême de Cacao consists of the aromatic principle of cocoa with a slight flavouring of vanilla, the Café Liqueur is in like manner composed of alcohol and the aromatic and flavouring constituents of coffee. The Elixir Vrignaud is, in fact, a yellow Chartreuse, prepared after the formula which is now no longer a secret, any more than is the receipt for making Eau de Cologne or Eau de Mélisse.

There is a class of products which play a very important as well as a very agreeable part amongst French drinks. These are the various descriptions of "Sirops," or *syrups*, which are made of different fruits. These syrups keep well, and possess the full flavour of the fruits from which they are prepared. Added in small quantity to water, or, better still, to some aerated or mineral water, they form a most refreshing drink, and one which we found, in our visits to the Exhibition, very agreeable. There was at the Exhibition a very complete and important collection of the *Mineral Waters of France*, and in the building in which these were shown was a large counter behind which were several women engaged in supplying to a continuous stream of people glasses of the several mineral and table waters asked for. To each glass was added a small quantity of the drinker's favourite syrup, a very delicious beverage being thus supplied at the small charge of 15 centimes per glass—certainly the very cheapest article of refreshment in the Exhibition, where sometimes 2 f. 50 c. were charged for a slice of melon, and 4 f. for a small portion of beef-steak. A favourite syrup is prepared from the gooseberry, and another from the lemon; "Sirop de Groseille" and "Sirop de Citron." It is a great pity that these syrups are not as generally used in England as they are in France, since they are not only very pleasant in themselves, but their consumption would greatly help the cause of temperance in this country.

Amongst the many exhibitors of syrups were Mons. Guibert, of Bourges, and Messrs. Rosignol, Lefevre et Fils, of Lille. Amongst the curious preparations exhibited is one invented by Mons. Adolphe Obez of Douai, and which he calls "Sirop de Calabre." It is made from liquorice-root, gum, sugar, and treacle, the mixture being aromatised with some essences. This syrup, when diluted with water in the proportion of 1 litre of syrup to 300 of water, is stated to form a pleasant and refreshing drink, much used for many years past in the army and principal manufactories of France. It is very inexpensive, and of course not at all intoxicating.

We will now proceed to describe certain so-called *Beers* of novel composition, and with these our notices of alcoholised beverages will be brought to a conclusion. The first of these is the "Bière de Lait" of Messrs. Pawel, Landowski, et Cie., of Paris. This product is described as being obtained by the alcoholic fermentation of milk with malt and hops, though it would be more correct to speak of whey, and not milk, since both the butter and the cheese of the milk are removed, so that all one really obtains in this beer, in addition to its ordinary constituents—seeing that the sugar of milk is, like that of the malt, converted into alcohol,—are the phosphates, lactates, and other salts of milk. The proportion of milk, or rather whey, employed in making this beer is not stated, and it is important that this should be known. Messrs. Pawel, Landowski, et Cie. were kind enough to place certain bottles of their "Bière de Lait" at our disposal. One of these we opened, and found the contents in excellent condition, soft, creamy, clear, bright, and pleasant; and had we not been informed of the fact, we should not, judging from the taste alone, have suspected the presence of any of the component parts of milk.

The same firm exhibited a "Bière de Goudron"—that is to say, an ordinary beer, to which tar in certain proportions is added. The malt and hops, it is stated, mask the taste of the tar, which, thus administered, is said to exert its usual specific and beneficial action on the bronchial mucous membrane. We have not tasted this beverage, but the inventors state that, when once accustomed to it, it is often preferred to ordinary beer.

In the Pharmaceutical Department of the Exhibition we noticed several other preparations made with *goudron*, which seems to be a favourite remedy in French pharmacy.

Although we are unable to notice all the different beers shown, there is one exhibited by the Société de la Bière Gallia on which we will bestow a few words. This beer, in order to signalise its French origin, is called "Bière Gallia"; it is made, as are the beers of Germany, by bottom fermentation, with every advantage of modern machinery and appliance, and of the best possible materials. We have tasted and examined samples of this beer.

We have now brought to a conclusion our remarks on the more interesting and important articles displayed by very many of the French exhibitors. These remarks have necessarily been very brief, but we trust that they have been sufficient to convey a tolerably accurate idea of the extent and variety of this portion of the Exhibition.

We failed to notice during our examination any specimens of what may be termed the Curiosities of French Food—such as fricasseed frogs, preserved frogs' legs, the two varieties of the edible snail, used especially for thickening soups, and said to be so beneficial in many cases of lung disease, different species of cuttle-fish, sea hedgehogs, &c.

Many people have been accustomed to wonder and laugh at the French for liking and eating such things, but if we examine the matter by the light of common sense, the French certainly have the best of it, and deserve much praise for the discrimination and knowledge which they display in making use of sources of food-supply rejected without reason by the people of other countries.

There is a great deal of mere fancy, and much more prejudice, about what many people eat, and what they refuse, as food. Nearly every animal substance that is known is good for food; nearly every animal, every fish, and in fact every living thing to be found on the surface of the earth, or in the water, of any size, is good for food when prepared in a suitable manner. Now the French have realised this fact for many years past; it was they who first taught us the value of horseflesh, which in this country is given chiefly to our cats, and it was they who taught us to make use of nearly every fish caught in the sea. The quality of many of the articles thus consumed varies no

doubt, but they are all sources of nourishment, containing those principles which are necessary for the sustenance of the body.

If one pays a visit to a French fish market, such as that of Boulogne, one is astonished at the large quantities of strange, uncouth-looking, and often coarse, fish, which are there exhibited, but which yet find ready purchasers at, of course, moderate prices. If we visit the "Halles Centrales," in Paris, we there see bushels of snails, large, fat, and cleanly, quite as pleasing to the eye as are the whelks, winkles, and many other shell-fish which are held in good esteem even by the fastidious British palate. In the same markets may be seen numerous bundles of frog's legs, tied together in hundreds, and the flesh of which is more delicate than that of the tenderest fowl; indeed, the quantity often seen is amazing, and makes one think that the poor frog has a harder time of it in France than even in England, where nearly every part of his wonderfully constituted little frame is in constant requisition by the physiologist and the microscopist. Again, go to the shores of the Mediterranean, and inspect the fish market and the fishwomen's baskets in some of the towns of the Riviera—Cannes, for instance—and you will there see basketsful of different kinds of cuttle-fish exposed for sale. These, too, find ready purchasers; indeed, by many they are esteemed as a great delicacy. You will also there see other baskets full of sea urchins, huge pinnas, many soft-bodied molluscs, and other curious creatures, which it would never enter into the imagination of an Englishman to regard as fit for food. Lastly, visit the market of the same town during the winter months, and you will there see dozens of strings of small birds, some of them numbering fifty or more, arranged on separate strings according to their species—thrushes, blackbirds, nightingales, starlings, larks, sparrows, linnets, and a great variety of other birds, including even the little robin redbreast, which with us is almost sacredly preserved. In fact, it would appear that no bird whatsoever is spared, no matter how beautiful its song or how rare its presence. We have even often seen the sparrow-hawk amongst the number, and, on one occasion, what appeared to us very like some old lady's favourite parrot. All these birds find ready purchasers, and many of them are regularly served up at the hotels and restaurants, forming delicate and appetising little morsels, which, no doubt, Englishmen partake of with relish, at the same time that they condemn, and rightly too, the practice of sacrificing to a greed for delicate food the smaller members of the feathered tribe, which are of so much real benefit to man while they live, by destroying myriads of insects, many of which are most destructive to growing crops. So much are these small birds in demand by French cooks, that in nearly every direction round a large town the capture and killing of them is made a regular pursuit. Men, so-called "chasseurs," armed with their guns, and furnished with a large bag, may daily be seen prowling down lanes, round gardens and private enclosures where birds congregate, much to the alarm and annoyance of foot-passengers and of the occupants of the houses. Thus, while we cannot but commend the French people for discarding prejudice and having recourse to so many unused sources of food supply, we must emphatically condemn the wholesale and indiscriminate slaughter which we have described, and which results, not in gain, but in very serious loss.

Although, during our several inspections, we failed to see in so vast an Exhibition any examples of what we have termed the Curiosities of French Food, it by no means follows that some among the number, at least, were not exhibited. In conclusion, we would remark of the French collection that it is one of more interest, variety, and importance than we believe could be exhibited by any other country in the world, and this for the special reasons set forth in the early part of this report.

CARMICHAEL SCHOOL OF MEDICINE.—We recently stated that the proprietors of this School had made arrangements for transferring it to more central premises; but since then a remonstrance has been addressed to the Public Health Committee of the Corporation of Dublin by persons who strongly object to the proposed establishment of a School of Surgery and Dissecting-room. The Committee have expressed their disapproval of the site selected for such a purpose, and have determined to communicate with the parties interested in the matter.

Correspondence.

"Audi alteram partem."

"CONTAGIOUS PNEUMONIA."

To the Editor of THE LANCET.

SIR,—In a note appended by you to a letter on "Contagious Pneumonia," in THE LANCET of September 7th, you say:—"The outbreak at East Sheen was mentioned by Sir William Jenner not as 'likely to occur' but as having occurred." It is not, I know, a matter of any moment, but as a fact I may say it was twice mentioned by me, first as one of the diseases likely to occur from the opening of the drain; and, *subsequently*, "as having occurred."

I am, Sir, yours obediently,

September 7th, 1878. W. JENNER, M.D.

To the Editor of THE LANCET.

SIR,—I thank you for having so courteously inserted in THE LANCET of September 7th a letter from my colleague Dr. T. W. Grimshaw and myself on the subject of "Pythogenic Pneumonia." To that letter you were good enough to append this editorial comment:—"The occurrence of epidemics of pneumonia is, as our correspondents point out, an established fact, and is sufficiently well known. But Dr. Kühn's observations are of special value as demonstrating that this pneumonia is contagious from individual to individual. The outbreak at East Sheen was mentioned by Sir William Jenner, not as 'likely to occur,' but as having occurred."

As I am well aware how anxious you are that no inaccuracies should appear in the pages of THE LANCET, I feel it incumbent on me to state that Dr. Kühn's observations on the *contagious* nature of pneumonia are not more original than those made by him as to the epidemic form sometimes assumed by this disease. In the "Recapitulation" at the close of Dr. Grimshaw's and my paper on "Pythogenic Pneumonia" in the *Dublin Journal of Medical Science* for May, 1875, page 418, we felt warranted in drawing the following conclusions:—"1. That the bibliography of pneumonia indicates the existence of a form of the disease which arises under miasmatic influences, and *is contagious*. 2. That this view is supported by the relations which exist between this form of pneumonia and certain zymotic affections, notably enteric fever and cholera, and by the resemblance between it and epizootic pleuro-pneumonia. 3. That its etiology justifies us in regarding it as a zymotic affection, and in naming it '*pythogenic* pneumonia.' 4. That pythogenic pneumonia presents peculiar clinical features, which enable us to distinguish it from ordinary pneumonia. 5. That much of the pneumonia which prevailed in Dublin during 1874 was of this pythogenic character. 6. That, whereas ordinary pneumonia is specially prevalent during a continuance of cold, dry weather, with high winds and extreme variations in temperature, pythogenic pneumonia reaches its maximum during tolerably *warm* weather, accompanied with a dry air, deficient rainfall, hot sun, and rapid evaporation." You will thus observe that the doctrine of the contagiousness of pneumonia is in no way original so far as Dr. Kühn is concerned, but merely receives corroboration from his very interesting observations on the outbreak at Moringen.

Again, with regard to the occurrence of pythogenic pneumonia at East Sheen, I have only to refer you to the full account of the outbreak given in the *Medical Times and Gazette* of April 4th, and June 20th, 1874. The facts are briefly these:—On Saturday, March 14th, 1874, the parish sewer in the road exactly opposite a first-class boys' school at East Sheen was opened by order of the rural sanitary authority for the purpose of inserting a ventilator protected by a charcoal screen. Mr. Waterfield, the head-master of the school, remonstrated, and backed up his own scientific objections by a certificate signed by several eminent medical men, including Sir W. Jenner, Bart., two of whose sons were students at the school. Sir W. Jenner especially mentioned the danger of pneumonia in connexion with the probable escape of sewer air in the vicinity of the school.

The Sanitary Board persisted in carrying out their intention, with a trifling modification. On Friday, March 20th, a high tide in the Thames blocked up the mouth of the sewer, and the compressed gases forced an opening through the ventilator. The rooms of the school facing the road were filled with foul-smelling sewer-air. Next morning a boy sleeping in one of these rooms was taken seriously ill with pneumonia; on the evening of the same day two other boys and two servants became similarly affected. One of the servants ultimately died. Mr. Waterfield at once broke up his school for the time being.

It will thus be seen that Sir W. Jenner "forecast" the outbreak of pneumonia some days before it actually occurred.

Apologising for the length of this letter,

I remain Sir, your obedient servant,

JOHN WILLIAM MOORE, M.D.

Dublin, September 9th, 1878.

PIEDRA.

To the Editor of THE LANCET.

SIR,—I think that your correspondents who are interested in the subject of "Piedra" would do well to turn to the following references before putting pen to paper—viz.: Beigel on the Hair (Renshaw). Beigel published and figured an account of the disease, or something like it, different from that on the chignon fungus, in 1855, I think. (I am away from home, and cannot give the exact reference.) Kaposi, Hebra, vol. iii., under the term *Trichorexis nodosa*. Wilson (Lectures on Dermatology, 1871, p. 125), who calls it *Trichoclasis* or *Trichochlasia*. Duhring's work on Skin Diseases, under the head of *Fragilitas crinium*. Devergie's article on *Tricoptilosis*, in the Annales de Dermat. et Syph. for 1871, I think. Luigi Billi (of Florence), article in the *Giornale Italiano delle Malattie Veneree delle Malatte della Pelle*, Aug. 1872. And the second edition of my own work referred to by Dr. Hoggan in THE LANCET of Sept. 7th.

The exact nature of the disease, however, is, without doubt, a fair subject for inquiry, and cannot be said to have been satisfactorily established.

Yours faithfully,

TILBURY FOX.

THE RHEUMATIC ORIGIN OF CHOREA.

To the Editor of THE LANCET.

SIR,—In answer to Dr. Goodhart, I may say that in my remarks in THE LANCET of the 31st August upon some cases of chorea, the personal histories only are given, because the numbers dealt with were not large enough, as I thought, to furnish any reliable conclusion as to the frequency of rheumatism amongst the relatives of the patients. We have no knowledge as yet, or at least no common agreement, as to the number of rheumatic relations which may be reckoned to each individual as his fair share. Perfect health should properly have no such connexion, but perfect health is only an expression. Amongst thirty-two choreic children Dr. Goodhart found rheumatic relatives for more than half. He admits, however, that "the relationship was not always so near as he could wish." It is obvious, indeed, that unless the degree of kindred be very rigidly defined, we may find such relatives in almost every instance. Again, the family records of hospital patients are very imperfect and unequal, and their descriptions almost always inexact. The rich and the poor, the educated and the ignorant, must all be taken separately. Moreover, it is so difficult to recognise rheumatism afterwards from mere description, that a dangerous choice always remains with the observer to accept the evidence or not, according to his bias. I do not say that these difficulties are insuperable; they are certainly too much for my present material.

But supposing it made out for certain that choreic children are hardly more rheumatic than others (and Dr. Goodhart bears me out upon this point), I venture to think that a strong presumption is raised against any direct association between the two affections. For, surely, amongst the liabilities which children incur from being of rheumatic stock, a predisposition to rheumatism itself must be reckoned? The "rheumatic diathesis" (or any other), however multiform in its mode of descent, requires at least as much as this in proof of the reality of the transmission. My friend, Dr. Barlow, has suggested to me that, for reasons he mentions, the rheumatism of childhood may, he believes, be often overlooked. This, however, is not Dr. Goodhart's contention. He denies that rheumatism is a direct and immediate cause of chorea, and in so doing, as it seems to me, puts in jeopardy the whole doctrine.

But, however this may be, a grand point is gained if it can be shown that choreic patients themselves are not and do not become the subjects of acute rheumatism in much larger proportion than other children. Two theories of two schools would be seriously threatened: the hypothesis which ascribes chorea to a mysterious poison which is partly spent upon the joints, yet still lingers in the blood, ready for mischief, and capable of this amongst other manifestations; and the hypothesis which asserts a purely mechanical origin for chorea in the conveyance of material from the heart to the brain.

Your obedient servant,

Wimpole-street, 13th Sept. OCTAVIUS STURGES.

THE VIOLET POWDER POISONING CASES.

To the Editor of THE LANCET.

SIR,—Having been to some extent concerned in the above I should like to say a few words about them. I had hoped that Mr. Lewis, of Loughton, and Dr. Fowler, of Epping, who saw most of the cases, and bore the brunt of the preliminary inquiry, would have reported their experience.

Dr. Tidy, in his article in THE LANCET of August 24th, says that the credit of showing that the violet powder was the cause of the mischief was due to Mr. Power, of the Local Government Board. Mr. Power made, I believe, every investigation into the cause of the supposed epidemic in Loughton and neighbourhood, but it was through Mr. Lewis, and a private patient of his (Mr. Deacon), that the powder was first forwarded to Dr. Jones (Evans and Jones), analyst, of Leadenhall-street, and it was on Dr. Jones's report that the powder contained arsenic that further proceedings were taken.

Two cases in Loughton came under my notice. In the first, a child a few weeks old, I found deep sloughing in the perineum, scrotum, and folds of the neck; sickness, diarrhœa, and retention of urine for many hours. Until I saw the sloughs in the neck, I thought that extravasation of urine was the cause of the mischief, but after seeing these I passed a probe a short distance down the urethra, and this was followed by a copious flow of urine. In the second case there was sloughing in the groin, perineum, about the sacrum, under the armpits, in the folds of the neck, and behind the ears; an erysipelatous redness over the abdomen, as high as the umbilicus, with great tenderness; vomiting and purging. The sloughing in this case was again puzzling, as without it I should have put the symptoms down to infantile cholera. In both these children the sloughs were first treated with poultices, followed on their separation by carbolic oil, and both recovered, probably owing to the fact that they were of more mature age when the powder was first applied than were the victims.

In the late case of Regina *v.* King, only one indictment was preferred, and that a recent one, so that very little medical evidence was forthcoming. Dr. Tidy was asked by the counsel for the defence "whether arsenic was a preservative, and, if so, how he could account for the great decomposition of the body in the case in question?" His reply was to the same effect as part of his article in your columns. May there not be some explanation for decomposition occurring rapidly in this case, notwithstanding the presence of arsenic? Sloughing I take to be a solution of continuity in the same sense as a wound, and of the post-mortem appearance of wounds Dr. Taylor says: "Putrefaction always commences sooner in parts which are wounded than in those which are uninjured." Dr. Guy says: "Putrefaction commences soon, and runs a rapid course, in *inflamed parts*, in bruises, and at the edges of wounds." Now, I should like to ask our leading pathologists whether they find on the post-mortem table that those who have died from extensive sloughing, phlegmonous erysipelas, or gangrene, are more decomposed generally, when placed on the table, than others, and whether in such cases they would expect the ante-mortem presence of arsenic in the system to retard putrefaction?

Mr. Henry Browne, in his evidence at the Central Criminal Court stated that the liver was enlarged in the case referred to. I, and other medical men present, understood him to state this as an evidence of death from arsenic. I am not aware that this is the case, and were it so it would be interesting; but I think that in an infant, where poisoning commenced immediately after birth, the liver would probably remain in nearly a fœtal condition from arrest of development.

I regret that the vague term "exhaustion" should have been stated as the cause of death, when "arsenical poisoning" would have been much more to the point. The counsel for the defence pounced on the word "exhaustion," and cross-examined upon it as much as he would have done had he been told the child died from "want of breath."

One of our most eminent analysts (not a medical man), engaged in the case, but not called, told me that when the elimination of arsenic was taking place he should expect to find the last traces in the urine, and equally, in the dead body, in the kidney, and not in the liver. Is this in accordance with the opinion of others?

The importance of elucidating any new points in forensic medicine must be my apology for troubling you at such length.

I am, Sir, yours faithfully,
A. M. ROBERTS, L.K. & Q.C.P.I., &c.

Buckhurst-hill, Essex, Sept. 10th, 1878.

WESTPHAL'S TEST FOR LOCOMOTOR ATAXIA.

To the Editor of THE LANCET.

SIR,—With reference to Dr. Buzzard's answer to my letter of August 17th, in which I opposed the idea of the presence of the normal patellar reflex being considered incompatible with a true diagnosis of posterior sclerosis, as was stated by him in his lecture in THE LANCET, July 27th, I must decline to accept his refutation of my case being one of locomotor ataxia on the grounds he states—viz., absence of ophthalmic symptoms and pain. These, I think, I can prove to be insufficient data on which to disagree with me in my diagnosis. First, then, as regards ophthalmic symptoms, I cannot find an author who states that they are *always* present, and, indeed, Trousseau, in his "Clinical Medicine" (vol. i., p. 150), states that he has several times noticed these affections to be absent; and, secondly, so far as the presence of pain is concerned, Dr. Buzzard, on referring once more to my letter, will see that the patient *had had pain*, though he was free from it at the date my letter was published; but even granting that he *never* had had any pain, either rheumatic, lightning, or otherwise, it is not a universal condition by any means, as *vide* Trousseau, vol. i., p. 147.

Taking the subject as a whole, upon what symptoms are we to base our diagnosis of this disease? This seems a matter difficult of solution if we have to follow the various whims and fancies of our recognised teachers and authors. Now, on what minimum aggregate group of symptoms are we to be allowed to style a case as one of "locomotor ataxia"? And this question, I think, is an important one in a disease devoid of physical signs, and in which the symptomatology is our only guide. Surely there must be some symptoms, however few, which indicate unequivocally the presence of this affection, notwithstanding the scientific hair-splitting and passing fancies of our lecturers, else we can logically come to no other conclusion than that there does exist a nervous lesion of common occurrence without any appreciable expression of symptoms at all.

W. BEATTIE SMITH, L.R.C.P., L.R.C.S.

Stockton-on-Tees, September 16th, 1878.

PHYSICIANS' FEES.

To the Editor of THE LANCET.

SIR,—The general practitioners can do much to help forward the movement for improved remuneration for professional services by selecting for consultation those *only* who take the higher fee of £2 2*s.* for seeing a patient, and £3 3*s.* for consultation. When compared with the fees received by the leaders of the legal profession, and the profits earned by tradespeople, the amount seems reasonable.

On the other hand, the heads of the profession can greatly assist the estimation and remuneration of the general practitioners by insisting on payment for hospital work. Why the wealthy public should pay only for the food, lodging, and nursing of their sick poor and not for their medical attendance I fail to see.

The great abuse of indiscriminate advice at our hospitals and dispensaries does much harm by educating the public to undervalue medical attendance, and cultivating the feeling that it is less disgraceful to receive *medical* charity than to accept *money* charity, when not absolutely necessary.

The general practitioner ought to exclude from medical clubs all who do not require to insure a payment (not exceeding £1 a week) in case of sickness, and when the better off join a benefit sick society more for the sake of medical attendance than for the money payment, the practitioner ought to be very stringent in making him adhere to club rules.

With age and experience most of our profession could safely and beneficially increase their fees more than they customarily do; their services are absolutely more valuable, and should be paid for at a higher rate, and the public generally value an article according to the price put on it.

Yours faithfully,
GEO. E. JEAFFRESON.

Sept. 16th, 1878.

To the Editor of THE LANCET.

SIR,—It ought to be known that the subject of physicians' fees, which has lately been before the public and commented on by you, has reference only to the question of payment at the doctor's house; it does not apply to the visiting fee, which appears to me the only one requiring reform. At the present time, those physicians who are demanding their one or two guineas at home, according to circumstances, have no hesitation in taking one guinea for an out-door visit. This is very remarkable, seeing that they have only to follow the sound principle determined in matters of business to rectify the anomaly. The new arrangement of co-operative stores has its origin in the fact that the price of a commodity is much enhanced when the tradesman has to wait upon the purchaser; and in the same way there can be no doubt that the time occupied in going to and from a patient's house, and maintaining a carriage for the purpose, should bring its equivalent remuneration. Yet at the present time rich or titled persons who are too proud or indolent to take their turn in the doctor's waiting-room, have only to send for the doctor to see them at their own convenience, and hand him a guinea (or, rather, a sovereign), and the latter is content. It has caused much annoyance to many younger men in the profession, when, under these circumstances, they have naturally asked for two guineas, to be informed that the leaders in the profession have been content with one guinea.

I say that the question which has been under discussion in reference to the fee at the doctor's house is unimportant in comparison with this evidently just increase of two guineas for out-door visits. If physicians would never take less than two guineas for a visit to a patient's house, the most important reform in the matter of fees would be established.

I am, Sir, yours, &c.,
X.

September 16th, 1878.

A TUMOUR OF OBSCURE NATURE.

To the Editor of THE LANCET.

SIR,—Cases like the following are exceedingly rare, and therefore I will thank you to find room for it in your journal:—

W. B——, a bricklayer, aged sixty-one, two years since began to suffer from pain in the epigastrium after taking food, and for the last nine months from frequent vomiting, though not every day. Solid food always gave him great pain. He had also had double inguinal hernia for several years, but easily reduced. I had attended him several times for these symptoms, but he had not received much benefit from any treatment, and had looked thin, pale, and anæmic during the latter part of his illness.

On December 20th, 1877, he felt sudden pain in the left side (probably in left groin) after defecation, and observed a swelling above the left testicle, which he thought had been produced by straining. The swelling was thought to

be a fresh protrusion of intestine at that side, but the taxis, application of ice, &c., made no impression upon it. After ten days I was called in consultation. The swelling was situated above the left testicle, as already stated, occupying evidently the line of the spermatic cord of that side. It was about three inches in length, and at least two inches in diameter, and the cord could be felt above it where it entered the abdomen, and below where it entered the testicle. The swelling was exceedingly tense and unyielding, as unyielding, in fact, as orchitis when acute and fully developed.

From the history of lengthened ill-health, and the patient's cachexia, I thought at first the swelling was malignant, and that it had been there some time, masked perhaps by the double hernia with which he was afflicted; but then he had put back the hernia every night when he went to bed, and he persisted in the statement that it had appeared suddenly from straining at stool, and that he never had had pain in the same place before, all of which made this view of it untenable. I also satisfied myself that it was not hydrocele of the cord. What, then, was the swelling? It was tense, heavy, and painless; if it was not malignant, what was it? The probabilities of the case pointed to hæmatocele of the cord. Ice had been applied for some days; this we discontinued, and we now treated it by the application of iodide of lead ointment; and whether the ointment did any good or not I cannot say, but the swelling gradually grew less, and in five weeks it was gone.

The poor patient got no better of the stomach symptoms. He could take very little food, and no solids. The cachectic appearance and emaciation became very marked, and he died about four months after the attack of illness I have briefly described above. The liver was not enlarged. I repeatedly examined the abdomen, and never detected any tumour in connexion with the stomach itself, and therefore I conclude either malignant disease of the œsophageal entrance of the stomach or of the pancreas was the cause of death. Unfortunately we could not obtain permission to examine the body.

I remain, Sir, yours obediently,
WM. DALE, M.D. Lond., &c.,
Physician to the West Norfolk and Lynn Hospital.

King's Lynn, Sept. 7th, 1878.

THE PARIS EXHIBITION.

(From our Roving Correspondent.)

NOBODY could possibly walk through the marvellous collection of objects in the Champ de Mars without being struck with the important position which is occupied by systematic education. Every country brings its educational machinery into prominence. The largest show of this kind is, of course, in the French department, where may be seen models of schools, books, statistics, and teaching apparatus without end. Many of the schools send samples of work performed by the scholars, and there are many volumes of drawings made by the pupils of the various fine art schools, and, what is more unusual, a large number of albums filled with samples of the needlework which has been turned out by the various communal and conventual schools throughout the country. The educational show made by Great Britain, Austria, Belgium, and the Scandinavian countries, though less extensive, is none the less good, and it is evident that throughout Europe the subject of education occupies the first thoughts of people and of governments. Time was when these educational departments would have been considered "dry" and uninteresting, and the average visitor to the Exhibition would have contented himself with a passing glance into the apartment where the display was to be seen. Such is not the case in Paris at the present time. These departments are literally crowded, and persons of the schoolmaster type, and of both sexes, may be seen poring over books, peering into portfolios, and greedily devouring the pedagogic feast prepared for them.

It is gratifying to notice also that Science, the Cinderella among the branches of knowledge, is not so neglected as she was. Her time has come, and in every department of the Exhibition her sway is paramount. The vast assortment of telegraphic and electrical instruments is hers, and hers alone. The marvellous show of instruments of precision, by which technical skill is wedded to mathematical science, is such as would delight the eyes of Mr. Spottiswoode himself. The Exhibition shows that the handicraft of the husbandman is nothing if not guided by scientific rules, and that for feeding cattle, for fattening poultry, for manuring land suitably for various crops, for destroying hurtful plants or insects, for reclaiming waste lands, and for making the sandy dunes of the French coast profitable, science is not only necessary, but alone is able to lead the way to success. In every branch of manufacture, the Exhibition shows that success is obtainable only by those who are guided by the rules furnished by the chemist and the physicist. Beer, wine, and bread are no longer to be made by chance and in a haphazard manner; and the great question of providing our population with nutritious and edible meat is one which can be answered, if, indeed, it has not already been answered, by appealing to the facts which have come to us from the laboratories of philosophers.

In the English section we were pleased to notice a stand of articles shown by Mr. Twining, of Twickenham, bearing the inscription "Science à la Portée de Tous." The articles exhibited are such as are used to illustrate his popular scientific lectures, including the excellent anatomical and botanical diagrams, which are published for Mr. Twining by Messrs. Hardwicke and Bogue, of Piccadilly. These diagrams, for accuracy, for effectiveness, and, above all, for cheapness, can rarely have been equalled, and, we believe, they have never been excelled.

It is to be regretted, we think, that no class has been assigned to subjects bearing upon hygiene and public health. It is true that medicine and hygiene are classed together in the French section, but the articles of hygienic interest exhibited are chiefly of a personal kind, and relate more to what is now called "orthopraxy" than to hygiene proper. The exhibition of the Minister of the Interior, which has a separate pavilion assigned to it, is of very great interest. It is particularly rich in architectural diagrams, and drawings of the chief edifices which are under the guardianship of this Minister. Lunatic asylums, maisons de santé, general and special hospitals, prisons, reformatories, and schools, are shown in great numbers. The books and apparatus used in teaching deaf mutes are exhibited, and in a separate building an actual school has been installed where those who are curious in such matters may see the process of instructing deaf mutes actually in operation. It is very interesting to note how attentive the children are to their lessons, and how little they are disturbed by the ever-varying crowd of faces watching them through the windows. The documents issued by the chief towns of France are of considerable importance. They are arranged in albums, and have reference to the public works which have been executed by the municipal bodies, as well as to the bye-laws which have from time to time been instituted by them. Take, for example, the records of the town of Reims. They show all that need be known by the historian or archæologist, as well as the more practical facts as to sewage, lighting, and water-supply, which are required to be known by those whose duty it is to carry out modern sanitary improvements. The Metropolitan Board of Works, we believe, publishes a considerable number of documents, but we are not aware whether this is a duty which is obligatory or not. In these days of cheap printing we think that every municipal body or sanitary authority should be compelled to publish a record of its acts, which records might be uniform in style, and besides being locally distributed, should be deposited in some central bureau where they might be available for comparison and research.

The Exhibition of the City of Paris, which occupies a position forming the exact centre of the main building, is in many points similar to that of the Ministry of the Interior, and like it will prove of singular interest to the sanitarian and the hygienist. The Municipality of Paris seems to be a model of its kind; its resources are very great, and the whole of its large income seems to be spent with remarkable judgment, combined with great enterprise and a readiness to adopt, without delay, all improvements which the ingenuity of inventors renders available. The architectural plans exhibited are very numerous, and the visitor cannot but be amazed at the barracks, churches, mairies, hospitals, prisons, schools, and boulevards which have sprung into existence under its guardianship.

The whole arrangement for the sewerage of Paris is shown with great completeness by the aid of models. The city of Paris seems to be ahead of the rest of the world on the sewage question, as it undoubtedly is upon many others; and it seems to have solved a difficulty both with regard to the solid and the fluid portions of the sewage. The solid matter is received into cesspools, whence it is removed at night to be converted into "poudrette," a manure which is found to be of considerable agricultural value. The liquid sewage till lately flowed into the Seine, some miles below Paris, but of late years it has been used to irrigate the Plain of Genevilliers, and the result has been that an arid almost barren tract of soil has been converted into a singularly productive farm—a fact to which testimony is borne by the gigantic cabbages and other vegetables which are shown at the Exhibition. On the north west side of Paris the Seine makes a bend like the letter S, and in the centre of the peninsula formed by one half of this bend, between the towns of St. Denis and Colombes, is the village of Genevilliers, which is at present the centre of the Paris Sewage Farm. We walked over this tract of country, and it was a satisfactory sight to see cereals, cabbages, gourds of all kinds, flowers of singular brilliancy, potatoes, artichokes, asparagus, and other vegetables all thriving in no ordinary way, and to know that this enlightened use of sewage water meant, not only food, but health also to the inhabitants of Paris. The pipes which carry the sewage water are beneath the surface of the soil, and the sewage is allowed to run into deep ditches, whence it is absorbed. The sewers of Paris are mainly made of concrete. The egg-shaped sewer is very largely used, and it is so constructed that a rail is placed at either side to allow of the transit of a pseudo tram-car, by means of which an effective cleansing is brought about. The cleansing of sewers by means of tramways carrying machinery, which is accurately adapted to the shape of the sewer, is largely employed, and is, we think, very worthy of imitation. The different implements used by the scavengers for cleansing and by the contractors for mending the streets of Paris are all displayed, and we can only hope that all the members of the Common Council and the metropolitan vestries who visit the Exhibition will study the display made by the City of Paris, and that some of the money which is being granted to working men for the purpose of visiting the Exhibition will be given to sewermen, watermen, and foremen of scavengers.

The important subject of the care of the sick and wounded in time of war is very largely represented in the Exhibition, but those who visited the Hygienic Exhibition at Brussels, which was very fully described in the pages of THE LANCET, will not find much that is new. The Minister of War shows a variety of ambulance waggons and carts, as well as the full equipment of army surgeons, physicians, apothecaries, and veterinary surgeons. We noticed a very ingenious plan for putting a litter into a cart or waggon with the least difficulty and with a minimum amount of discomfort to the injured man. The fore legs of the litter are received into a trough on wheels, not unlike a sheep-feeding trough in miniature. The fore legs being safely placed in the trough, they are conveyed in it to the far end of the vehicle, and thus the litter is correctly arranged, and by the aid of only one person. A matter of no small importance is the transport of wounded on board ship, and this has been made the subject of study by Dr. J. Maréchal, the chief physician of the port of Brest. Dr. Maréchal very shrewdly remarks that in modern naval warfare the space allowed for the manœuvring of the big guns is so very restricted that the presence of the wounded becomes a very serious impediment, and that their safe and rapid removal without the aid of litters becomes a very important matter. He proposes to use the ordinary regulation hammock for this purpose. The hammock is strengthened and kept stretched by means of two flexible laths on the outside, and by a folded mattress on the inside. The wounded man is then placed in it. A couple of stretchers are placed crosswise at the head and foot, and a bolster is placed beneath the nucha, and another beneath the knees. The hammock is then laced up down the front in the way a boot is laced, with hooks. There is just enough flexibility in this apparatus to allow of its being lowered through hatchways with ease, and without occupying the entire area of the hatchway. Arrived at the sick-bay, the wounded man is merely suspended from hooks, and he need not then be subjected to any further removal.

The number of beds for the sick exhibited is tolerably large, and they display a considerable amount of variety in their arrangement. The apparatus of Lebrun, whereby a patient who has but one useful arm left to him is enabled to alter his position in bed, is most ingenious, and deserving of notice. It resembles, in principle, a "travelling crane," of the kind which is common on wharfs and elsewhere, where considerable weights have to be moved. By merely turning a handle, and by a very trifling expenditure of force, the patient can move himself vertically, and is thus enabled to relieve pressure, or to admit of the insertion beneath him of a bed-pan, or the application of dressings to his back. By turning a second handle, after he is swung in the air, a lateral movement is given to the apparatus, and in this way the patient, when he is so disposed, and notwithstanding an almost complete helplessness, may shift himself from one bed to another.

M. Amédé Lefebvre exhibits a bed which is called "Lit Articulé Aérifère." The mattress is composed of four elastic mattresses articulated together. The head section can be placed at any angle, so that the head and shoulders of the patient can be raised even to a sitting posture. The section under the loins is immovable. The section under the buttocks can be moved vertically downwards, so that a bed-pan can be introduced, and the fourth and largest section is for the support of the feet. The sacking covering the bed is perforated beneath the buttocks, and is in three sections securely buttoned together. By means of rollers it can be very tightly stretched, and in this way the patient can be moved completely off his bed, and thus allow air to gain admittance beneath him. The sides and end of the bed are fitted with steel springs, which serve to retain, by their pressure, the proper position of the bedclothes. This bed is ingenious and simple.

Messrs. Sibillat et Cie., who supply beds to many of the Paris hospitals and other public institutions, display an interesting collection of iron bedsteads. The beds supplied to the lunatic asylums and for the epileptics in the Bicêtre and Salpétrière hospitals are peculiar in being made with a cast-iron cistern of a conical form fitted to the bottom, so that all liquids drain away from the patient directly into it, whence they are readily removed. They show a variety of spring mattresses, but most of them seem to us to have the fault of presenting a great number of suitable places for the lodgment of dust and impurities. Spring mattresses are a great blessing to invalids without doubt, but facility of cleansing is a point which must never be lost sight of in mattresses intended for hospital use.

Several feeding-bottles are exhibited in the department of Hygiene, and of each one it is asserted that it alone accords with physiological principles. All makers seem equally impressed with the importance of cleanliness, and many of the additions have for their aim the facilitating of the act of cleansing. M. Toannard fixes, at will, an elastic ball to the end of the feeding-tube, and in that way water can be forced through the tube. He also shows a bottle provided with an elastic pressure ball fitted to the cork. In this way air is forced into the bottle, and milk is driven through the suction tube—a simple contrivance familiar to English mothers. M. Guichard has a feeding-bottle which is graduated to ensure an accurate dosage of the food, and is further provided with a cover to prevent the radiation of heat.

The French are more liberal than the English in certain matters, and the Conference Hall has been occupied by the homœopathists. They have also assigned, at the Exhibition, a special pavilion for the purpose of illustrating the subject of hydropathy, in which may be seen every conceivable apparatus for employing water as a curative agent. Every form of bath, every form of douche, all varieties of the needle bath, and pulverisers and inhalers without end, are here displayed, but we failed to see anything worthy of specific notice.

Before bringing this letter to a close, mention must be made of a very interesting group in marble which is to be found amongst the Italian sculpture, and which represents Jenner vaccinating his child. The group is vigorous and lifelike. Jenner, in knee-breeches and full-breasted coat, is represented as a man on the younger side of forty. His face is intelligent and full of determination, and, quite regardless of the struggles of his child, he is represented in the act of making the vaccination punctures in the arm. The child, on the other hand, is trying its hardest to escape from the ordeal. It is a statue which has great merit from the purely artistic point of view, and, although purely imaginative, has a peculiar interest for the members of our profession.

Medical News.

INDIAN MEDICAL SERVICE.—The list of candidates who were successful at the competitive examination held at Burlington House on Aug. 12th should have appeared in the following order, and not as previously advertised:—

	Marks.		Marks.
G. F. A. Harris	2319	H. B. Briggs	1954
J. K. Sweeny	2263	C. G. W. Lowdell ..	1940
D. T. Barry	2252	A. S. Faulkner	1760
J. Anderson	2246	C. Mullins	1640
C. J. Bamber	2213	E. M. Damia	1560
E. H. Dumbleton ..	2120	R. M. Allen	1530
M. O'Dwyer	1997	H. S. C. Carruthers ..	1472
W. B. Carson	1965		

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 5th and 12th of September:—

Campbell, John Melvin, Rotherfield-street, Islington.
Cuthbert, Francis Firmin, Mendlesham, Stowmarket, Suffolk.
Davies, James, Dee-bank, Chester.
Elliott, Horace, Westminster Hospital.
Pollard, James Henry, Shair, near Oldham.
Woollett, Sidney Winslow, Chigwell, Essex.

The following gentlemen on the same days passed the Primary Professional Examination:—

Thomas George Beckett and Herbert Charles Stover, Guy's Hospital; Wm. J. Franklin Churchouse, Charing-cross Hospital; Tom Percy Woodhouse, St. Thomas's Hospital.

DR. GILBERTSON, of Preston, has been appointed Deputy Coroner for the Amounderness and Leyland Hundreds of the county of Lancaster.

THE Governors of the Preston Infirmary have agreed to purchase 26,469 square yards of land from the Board of Guardians subject to the sanction of the Local Government Board.

THE Lancashire Justices have granted a superannuation allowance of £750 per annum to Mr. Joseph Holland, F.R.C.S.Eng., Superintendent of the County Lunatic Asylum at Whittingham.

THE Brighton Waterworks Committee have presented to the Corporation a report, in which, on the advice of their engineer, Mr. Edward Easton, they recommend a re-arrangement and improvement of the water service to the town, at an estimated cost of £14,430.

DR. FRANKLAND reports, as the result of his analyses of the waters supplied to the metropolis during August, that the Thames and Lea waters delivered by the Companies supplying Inner London had been efficiently filtered, and were of superior quality to those delivered during June and July. The deep well waters supplied by the other Companies were of the usual excellent quality. The temperature of the river waters ranged from 64·9° to 67·6°, while that of the deep well waters did not exceed 56·1° Fahrenheit.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.—The opening meeting of this Society for the session 1878-79 was held in the Faculty Hall, 242, St. Vincent-street, on the evening of the 13th inst, when the following gentlemen were elected office-bearers for the present session:—President: Dr. Andrew Fergus. Vice-Presidents: Dr. A. Patterson, Dr. M'Call Anderson. Council: Drs. Thomas Reid, T. Graham (Paisley), William Macgill, Hugh Miller, Alex. Robertson, A. L. Kelly, Bruce Goff (Bothwell), and J. B. Russell. Secretaries: Dr. Joseph Coates, Dr. W. L. Reid. Treasurer: Dr. Hugh Thomson.

PRESENTATIONS.—Dr. D. Mackintosh, of Southsea, has been presented with a valuable gold watch by the members of the St. Thomas' Amicable Benefit Society, as a tribute of the respect in which he is held as surgeon to the Society.—Mr. John Somerville Johnston, L.K.Q.C.P.I., L.R.C.S.I., has been publicly presented with a very handsome black marble dining-room timepiece, inlaid with gold, on the occasion of his leaving Brotton and North Skelton villages. The inscription was as follows:—"Presented to Dr. John Somerville Johnston by the agents, workmen of North Skelton Mines, and a few friends, on his leaving. August 29th, 1878."

Medical Appointments.

ARCHER, E. G., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer for the Thetford District and the Workhouse of the Thetford Union, Norfolk, vice Minns, resigned.

ATCHLEY, G. F., M.B., M.R.C.S.E., has been re-elected a Surgeon to the Bristol General Hospital for a further period of ten years.

BATTEN, R. W., M.D., has been appointed Physician to the Ophthalmic Department of the Gloucester General Infirmary.

BENNETT, F., M.R.C.S.E., has been appointed Medical Officer for the Linton District and the Workhouse of the Linton Union, Cambridgeshire, vice Ireland, deceased.

BROWN, W. H., M.R.C.S.E., has been appointed House-Surgeon to the General Infirmary, Leeds, vice Vernon, resigned.

CAMERON, C. A., L.K.Q.C.P.I., F.R.C.S.I., has been appointed Public Analyst for Kingstown, co. Dublin, at £20 per annum.

CAMERON, H. C., M.D., F.F.P.S.G., has been reappointed a Visiting Surgeon to the Royal Infirmary, Glasgow.

CHALMERS, M., M.D., F.F.P.S.G., has been reappointed a Visiting Physician to the Royal Infirmary, Glasgow.

CLARK, H. E., L.R.C.P.Ed., F.F.P.S.G., has been reappointed a Dispensary Surgeon to the Royal Infirmary, Glasgow.

CLARKE, T., L.R.C.P.Ed., L.F.P.S.G., has been appointed Medical Officer of Health for the Pewsey Rural Sanitary District, Wilts, at £50 per annum, vice the Poor-law District Medical Officers.

CLOWES, J. S., M.R.C.S.E., L.S.A.L., has been appointed by the Trinity Company, London, Medical Officer to the Keepers and their Families, at the Happisburgh Light Establishment, Norfolk, vice Boad, deceased.

COLE, R. M., L.R.C.P.L., M.R.C.S.E., has been appointed a Surgeon to the Ophthalmic Department of the Gloucester General Infirmary.

COLLINS, Mr. J. H., has been appointed Public Analyst for Launceston, at 21s. per analysis (half to be paid by the Town Council and half by the person requiring it), and 42s. for each quarterly report when an analysis is embodied in it, and 21s. per analysis when not.

COUMBE, J. B., M.D., L.R.C.P.Ed., has been appointed Senior House-Surgeon to the Macclesfield General Infirmary, vice Cameron, resigned.

CROSS, F. R., F.R.C.S.E., has been appointed Lecturer on Anatomy at the Bristol Medical School, and Surgeon to the Out-patients of the Infirmary.

DE LA MOTTE, G. C., M.R.C.S.E., has been appointed Medical Officer to the Dorsetshire Constabulary, Swanage, vice P. W. De la Motte, L.R.C.P.Ed., resigned.

DENNY, C. J., L.K.Q.C.P.I., has been appointed Medical Officer and Public Vaccinator for the Sandhurst District of the Easthampstead Union, Berks, vice Fry, deceased.

EARLE, B. N., M.B., has been appointed Public Analyst for Winchester, at 30s. per analysis.

ELLIS, T. S., M.R.C.S.E., L.S.A.L., has been appointed a Surgeon to the Ophthalmic Department of the Gloucester General Infirmary.

ELLIS, W. A., L.R.C.P.L., M.R.C.S.E., has been appointed Resident Medical Officer to the Western Dispensary, Queen Anne's Gate, Westminster, vice Stewart, resigned.

FLETCHER, C. W. C., L.R.C.P.Ed., M.R.C.S.E., Junior House-Surgeon, has been appointed Senior House-Surgeon to the Ingham Infirmary and South Shields and Westoe Dispensary.

GRANT, J. D., M.B., C.M., M.R.C.S.E., has been appointed Surgical Registrar and Pathologist to the Central London Throat and Ear Hospital.

GRAYSON, F. D., M.R.C.S.E., L.S.A.L., has been appointed Medical Officer and Public Vaccinator for the Rayleigh District of the Rochford Union, Essex, vice Coles, deceased.

HAMILTON, F. G., M.R.C.S.E., has been appointed Extra Assistant-Surgeon to the Central London Throat and Ear Hospital.

HINDFORD, H., M.B., M.R.C.S., has been appointed Medical Tutor at Queen's College, Birmingham, vice Eales.

HARKER, J., M.D., L.R.C.P.Ed., has been appointed Medical Officer of Health for the Lancaster Urban Sanitary District, at £50 per annum, vice Watson, deceased.

HUNT, L. G., M.D., L.R.C.P.Ed., L.F.P.S.G., has been appointed Medical Officer to the Sheffield Union Workhouse, at £150 per annum and extra fees, vice Kemp, deceased.

JONES, J. T., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Worthen District of the Forden Union, Montgomeryshire, at £69 per annum and fees, vice Hickman, resigned.

JONES, S., F.R.C.S.E., has been appointed Consulting Surgeon to the Central London Throat and Ear Hospital, vice Jackson, deceased.

MACREADY, J., F.R.C.S.E., has been appointed a Surgeon to the Out-patients' Department of the Great Northern Hospital, vice Watson, appointed a Surgeon to the In-patients' Department.

MCROBERT, H. G., M.B., C.M., has been appointed Medical Officer and Public Vaccinator for the Parish of Assynt, Sutherlandshire, at £140 per annum, £10 per annum for medicine, free house, and private practice, vice Bruce, deceased.

MADDEN, T. M., M.D., M.R.I.A., has been appointed Obstetric Physician to the Mater Misericordiæ Hospital, Dublin.

NAPIER, A. D. L., M.D., C.M., has been appointed Medical Officer, Public Vaccinator, and Medical Officer of Health for the Parish of Stenton, Haddingtonshire, vice Dunlop, deceased.

PETTINGER, G. W., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Stretford Urban Sanitary District, Lancashire, at £50 for one year.

POPE, P. M., M.D., L.R.C.P.Ed., has been appointed Medical Officer for the No. 1 District of the Malling Union, Kent.

POPHAM, S. L., M.D., C.M., has been appointed Medical Officer to the Drayton Union Workhouse, vice Meek, deceased.

RUSSELL, G., M.B., C.M., has been appointed House-Surgeon to the North Staffordshire Infirmary, Hartshill, vice Frost, resigned.

SAUNDBY, R., M.D., L.R.C.P.Ed., has been appointed Professor of Comparative Anatomy and Zoology at Queen's College, Birmingham, vice Savage.

SHEPARD, A. J., M.R.C.S.E., L.S.A.L., has been reappointed Medical Officer of Health for the Usk Urban Sanitary District, at the rate of £5 5s. per annum, until 24th June next.

SHEPARD, H. C., M.R.C.S.E., has been reappointed Medical Officer and Public Vaccinator for the Raglan District of the Monmouth Union, at £25 per annum and fees, for three years.

SKINNER, D. S., L.R.C.P.Ed., M.R.C.S.E., L.S.A.L., has been re-appointed Medical Officer of Health for the Lyme Regis Urban Sanitary District, at £12 for one year.

SPENCER, L. W., L.R.C.P.Ed., M.R.C.S.E., has been reappointed Medical Officer of Health for the Preston Rural Sanitary District, at £100 for one year.

THURSFIELD, T. G., M.D., C.M., has been appointed Medical Officer and Public Vaccinator for the Brosley District of the Madeley Union, Salop, vice Hartshorne, deceased.

WHITE, A., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed House-Surgeon to the Clayton Hospital and Wakefield General Dispensary, vice Hassall, resigned.

WILLIAMS, W. R., M.R.C.S.E., has been appointed Assistant Demonstrator of Anatomy at the Middlesex Hospital Medical College.

Births, Marriages, and Deaths.

BIRTHS.

CABLE.—On the 7th inst., at Royal-hill, Greenwich, the wife of George H. Cable, M.R.C.S.E., of a daughter.

CAMPBELL.—On the 8th inst., at Wellington-square, Hastings, the wife of William Campbell, L.R.C.S.Ed., of a daughter.

JAMISON.—On the 8th inst., at St. Helen's, Lancashire, the wife of Arthur Jamison, M.D., of a son.

KESTEVEN.—At Ashburton, Canterbury, New Zealand, the wife of Leighton Kesteven, M.R.C.S.E., of a son.

LINDSAY.—On the 3rd inst., at Lesmahagow, the wife of John Lindsay, M.D., of a daughter.

MCCLURE.—On the 6th inst., at Wurle, Somersetshire, the wife of Thomas McClure, M.D., of a son.

MILLER.—On the 13th inst., at Amhurst-road, Stoke Newington, the wife of F. Montague Miller, Esq., of a daughter.

PRICE.—On the 28th ult., at Kettering, the wife of J. Lowe Price, M.R.C.S.E., of a son.

SHAPTER.—On the 17th inst., at The Barufield, Exeter, the wife of Lewis Shapter, M.D., of a son.

MARRIAGES.

GILMOUR—GERRISH.—On the 4th inst., at Hurstbourne Tarrant, Andover, by the Rev. Gilbert Alder, John Henry Gilmour, Surgeon, to Harriette Jane, the youngest daughter of Thomas Gerrish, Esq.

HUNT—HAMMERSLEY.—On the 4th inst., at St. James's, Congleton, by the Rev. F. Hopwood, M.A., Vicar, assisted by the Rev. R. Boughey, M.A., Vicar of Betley, Joseph Hunt, of Temple-row, Birmingham, to Mary, second daughter of the late Titus Hammersley, Esq., of Great Fenton, Stoke-on-Trent, and Ashville House, Leamington.

LEEDS—MAYNARD.—On the 4th inst., at St. Andrew's Church, Paddock Wood, Brenchley, Kent, Edward Leeds, M.B., M.A., of Castle-hill, Brenchley, to Sarah, third daughter of J. Maynard, Esq., of Swathland House, Paddock Wood.

THOMAS—DUFFIELD.—On the 16th June, at St. George's Church, Gawler, South Australia, by the Ven. Archdeacon Dove, assisted by the Rev. Canon Coombe, John Davies Thomas, M.D., F.R.C.S.E., to Eleanor, fourth daughter of the Hon. Walter Duffield, M.L.C., of Para Para.

WHARTON—OLDHAM.—On the 4th inst., at Emmanuel Church, Holcombe, by the Rev. Henry Dowsett, Rector, Joseph Wharton, L.K.Q.C.P.I., M.R.C.S., &c., of Hopwood House, Oldham, to Alice, daughter of the late John Clegg, of Oldham. No cards.

DEATHS.

BARHAM.—On the 8th inst., at Stone-street, Maidstone, Frederic Barham, M.R.C.S.E., aged 68.

BURN.—On the 1st inst., John Burn, M.R.C.S.E., L.S.A.L., of Hanley, Staffordshire, aged 48.

COOKE.—On the 22nd July, on board the steamer *Nepaul*, Dr. Robins W. Cooke, of Calcutta, aged 48.

GUNN.—On the 12th inst., at Melville-street, Edinburgh, John Jamieson Gunn, M.B., C.M., M.R.C.P.Ed., only surviving son of Ronald Campbell Gunn, Esq., F.R.S., of Newstead, Launceston, Tasmania, in his 33rd year. Friends omitted will please accept this intimation.

HILTON.—On the 14th inst., at Clapham, John Hilton, F.R.C.S.E., F.R.S., aged 73.

HULL.—On the 12th ult., at Queenstown, South Africa, George Askew Hull, M.R.C.S.E., aged 31.

MARSH.—On the 12th inst., at Truro, Alice, the wife of N. J. Marsh, Esq., House-Surgeon at the Royal Cornwall Infirmary, aged 31.

OWENS.—On the 9th inst., at Selhurst-road, South Norwood, Henry Owens, M.D., aged 40.

PARSONAGE.—On the 4th inst., at Sutton, Cheshire, Edwin Parsonage, M.D., aged 45.

RUSSELL.—On the 1st inst., at Holmhill, Thorphill, Dumfriesshire, Dr. James Russell, aged 84.

SCOTT.—On the 4th inst., at Tynemouth, Alexander Morice Scott, L.F.P.S.G., aged 56.

SLACKE.—On the 1st inst., at Chapel-en-le-Frith, Dr. Thomas Slacke, aged 68.

SYME.—On the 8th inst., at Comingsby-place, Alloa, N.B., James Syme, L.R.C.S.Ed., L.R.C.P.Ed., in his 93rd year.

[N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages and Deaths.*]

BOOKS ETC. RECEIVED.

Dr. K. McLeod: Statistics and Causes of Suicide in India.
Dr. Atthill: Diseases of Women.
Truths about Whisky.
Dr. W. Kühne on the Photochemistry of the Retina, and on Visual Purple.
Surgeon George Waters: Three Years' Medical History of the Persian Gulf.
Social Notes. August and September.
W. Digby: The Famine Campaign in Southern India. Vols. I. and II.
T. Cooke: Tablets of Anatomy and Physiology.
A. Hensman: Anatomical Outlines for the Use of Students. Part II.
The U. K. S. Seat of War Map. No. I.
The World on Mercator's Projection.
St. Thomas's Hospital Reports. Vol. VIII.
Dr. J. Martel: De l'Accommodation en Obstétrique.
Dr. C. Spinzig on Variola.
W. J. Walsham: A Handbook of Surgical Pathology.
Dr. S. C. Busey: Narrowing, Occlusion, and Dilatation of Lymph Channels.
Dr. S. Eldridge: Notes on the Diseases affecting European Residents in Japan.
Dr. W. T. Gairdner: The Antipyretic Treatment of Specific Fevers.
R. Hughes: A Manual of Therapeutics. Vols. I. and II.
Dr. H. C. Angell: The Sight, and how to Preserve it.
O. Browning: Modern England.
Dr. W. Sharpe: Humanity and the Man.
D. Ignacio Valenti y Vivó: Toxicologia.

Notes, Short Comments, and Answers to Correspondents.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.

THE prospectus of this hospital was inadvertently omitted in the Students' Number last week. The hospital, founded in 1804, and considerably enlarged in 1876, now contains 100 beds for patients, which were occupied during last year by 1400 persons. The out-patients are yearly over 20,000. Operations are performed daily from half-past ten to one o'clock, and three surgeons attend on each day: Mr. Streatfeild, Mr. Waren Tay, and Mr. Adams, on Monday and Thursday; Mr. Lawson, Mr. Couper, and Mr. Soelberg Wells, on Tuesday and Friday; Mr. Wordsworth, Mr. Hulke, and Mr. Tweedy, on Wednesday and Saturday. Students are admitted to the practice. Fees for six months, £3 3s.; perpetual, £5 5s.; with admission to demonstrations and lectures, to be given during the winter. Students of the hospital are eligible for the office of house-surgeon, or may be appointed clinical assistants. House-surgeon, R. M. Gunn; assistant house-surgeon, George H. Burnham; secretary, R. Newstead.

Foreign M.D., and L.R.C.P. Ed.—Such a person, duly registered, would not be subject to prosecution under the Bill for using the title of M.D.

OBSTRUCTION OF THE BOWELS.

To the Editor of THE LANCET.

SIR,—The following case, which came under my care a short time ago, is, from its rarity, worthy of record.

C. S——, a sheet-roller at a tin-works, aged eighteen, was suddenly seized, when on his way to work at 7 A.M., with such excruciating pain in the abdomen that he was compelled to sit down by the road-side. When the pain abated, he returned home, a distance of about a mile, and went to bed. I was sent for the same afternoon. I found him lying with his knees drawn up, suffering great pain. The abdomen was quite lax, and everywhere, even on deep palpation, free from tenderness, except over the right iliac region, where the slightest touch caused him to cry out. The bowels had acted the previous day. Pulse quick; temperature normal; breathing very hurried and short. Ordered opium in half-grain pills every two or three hours, and warm poultices to the abdomen. The following day his condition was more serious. He had passed a sleepless night, was in constant pain, and frequently sick. The belly was slightly tumid. As the bowels had not acted, I gave him an enema of warm water; to go on with the pills, and to take an effervescing draught occasionally. From this time the pain became worse, but limited to the one place; the vomiting more frequent and copious. The bowels did not act, and he was troubled with distressing hiccough. The face became pale and shrunken, and the body emaciated and covered with clammy sweats. He died on the sixth day of the attack.

On making a post-mortem examination twenty-four hours afterwards, I found that the belly had swelled immensely after death. On opening the peritoneal sac, a quantity of fetid gas escaped. There was about half a pint of flaky, purulent effusion. The cæcum and adjoining parts were matted together by recent lymph. On carefully examining these parts *in situ*, I found a band, constricting the cæcum, across its centre. This proved to be the appendix vermiformis, which, by its apex, was pretty firmly adherent to the greater omentum. It was much swollen, and contained in its cavity a portion of hardened fæces, about the size and shape of a small bean. On account of the friends refusing to leave me alone with the body, I was unable to get possession of the whole specimen; but I managed to cut off the appendix, which I have now preserved in spirit.

I am, Sir, yours truly,

Cardiff, Sept. 3rd, 1878. FRED. EVANS, M.B.

TRAFFIC IN GERMAN DEGREES.

THE *Allgemeine Zeitung*, of Augsburg, has recently contained a communication from Dr. Jürgensen, Dean of the Tubingen University, enclosing an impudent letter, signed by a certain T. Blyth, of London, addressed to the Dean, and written in very ungrammatical German. The letter is to the effect that the writer has several applicants for the degree of Doctor of Medicine, who are willing to pay the usual honorarium, and more, for a degree without examination, or with a very modified examination coupled with the assurance beforehand of success. The Dean naturally feels himself and his University insulted by such a communication, and takes the proper course to expose it.

Student, (Guy's.)—1. Jaccoud in Medicine, Cazeaux in Midwifery, Courty in Gynæcology.—2. Messrs. Williams and Norgate.

Mr. J. Reynolds.—See the Students' Number of last week.

THE GENERAL INFIRMARY AT LEEDS.

To the Editor of THE LANCET.

SIR,—After the recent able address on Surgery at Bristol, in which the almost unequalled excellence of Leeds as a field for surgery and the ability of its staff were so forcibly brought before us, it is hardly to be wondered at that many good London men last week applied for the post of house-surgeon in that town.

In reply to the advertisement in THE LANCET, which stated that candidates must be doubly qualified, thirty applications were sent in, and several candidates journeyed north to make inquiries as to the duties of the office; but great was their surprise when told in the town that they had better not try, as it was practically decided to elect a local man with one qualification, although the advertisement stated two qualifications to be necessary; and such proved to be true.

This is not a solitary case, and I would submit it is hardly fair to our hospitals or ourselves. An unsuccessful candidate is a defeated one. He has been at considerable expense, and has obtained special testimonials for the appointment he seeks, and they are useless, so that he has again to appeal to his late staff, which is both trying to their tempers and unpleasant to himself.

If Leeds has a good local man, he has by all means the first claim to the appointment, and it is now generally admitted Leeds is second to none as a school for surgery; but let the faculty spare others the inconvenience of a fruitless journey. The post of house-physician at the same hospital will, I am informed, be vacant in the spring, so that I would recommend future candidates to make inquiries before applying, in case they, like us, are sent on a fruitless errand.

I do not write this from any ill-feeling towards the staff of this fine hospital, but in the hope that our young surgeons who apply for these posts—and they are the men who have acquitted themselves creditably in their schools—may meet with more consideration from electing bodies than has unfortunately been the case in connexion with the Leeds Infirmary. I remain, Sir, yours &c.,

London, Sept. 14th, 1878. ONE OF THE CANDIDATES.

*** If the facts related above be true, it was manifestly wrong to ask candidates to put themselves to the trouble, cost, and inconvenience of applying for a post already bespoken. Without questioning the wisdom of the selection, it is difficult to perceive the justice of announcing in the advertisement that candidates must have a double qualification, and then accepting one with a single.—ED. L.

Surgeon, A.M.D. — Our correspondent, who appears to be weary of service in India, is desirous of information "regarding life and practice in Australia and New Zealand in the large towns and up country, and what the prospects might be of a man fairly up in his profession and with a little means at his disposal."

Liverpool.—The quackery is very low, almost too low for notice.

"GELSEMINUM" v. "GELSEMIUM."

To the Editor of THE LANCET.

SIR,—If Mr. Samuel Smith will consult the "Prodromus" of De Candolle, the "Genera Plantarum" of Bentham and Hooker, or any similar work, he will find that the genus in question was first described, under the name of "gelsemium," by Jussieu in his "Genera Plantarum." As that work was published in 1789, it follows that, "if," to use Mr. Smith's own words, "age in priority of description" is to settle the question, "gelsemium," and not "gelseminum," is the proper orthography, and that the compilers of the United States' Pharmacopœia are right. Why the extra consonant should have been left out, assuming the Italian "gelsomino" to be the origin of the name, I cannot say, but we have a similar omission in the genus "cinchona" of Linnæus.

Yours &c.,

September, 1878. F. P.

Mr. Rutherford should take the opinion of his medical attendant on the point raised. The principles governing the practice of leaving open bedroom windows will need to be explained, and for this elementary matter we have not space.

Dr. Lewis Shapter. — The paper forwarded will appear in an early number. We can make no promise with regard to communications not yet received.

TYPHOID FEVER.

To the Editor of THE LANCET.

SIR,—Can any of your numerous readers kindly inform me whether there are on record any cases of typhoid fever having occurred between the ages of seventy and eighty? Also, what might be the latest period of life at which cases have been met with?

Yours truly,

September, 1878. AN ENQUIRER.

IRISH MEDICAL RELIEF TICKETS.

THE Local Government Board have issued a circular to the various unions throughout Ireland in reference to the irregularities connected with the issuing of visiting tickets by members of Dispensary Committees to parties who do not properly come within the provisions of the Medical Relief Acts. They also throw out a suggestion that a tariff of medical fees for persons unable to pay the usual sums for medical attendance might be constructed, which, if properly carried out, would to a great extent do away with the abuses connected with dispensary visiting tickets.

Glasgow Royal Infirmary School of Medicine.—The prospectus was given in the Students' Number, page 391.

Medicus.—A French qualification is necessary.

SEA-WATER BATHS FOR LONDON.

To the Editor of THE LANCET.

SIR,—The promoters of the scheme for providing sea-water baths for London, to whom you refer in your issue of August 31st, should carefully consider their position before entering on so large and expensive an undertaking. The difference between a bath in the sea and a sea-water bath in a confined space is very great indeed, as anyone knows who has spent much time on sea in yachts or passenger steamers. The luxury and healthfulness of a dip in the sea are due chiefly to the even temperature of the water, to the movement of the water, to the fresh sea breezes, and to the change of scene, rather than immersion of the body in the salt-water. Voyagers to and from India consider the sea-water bath they are compelled to use a positive nuisance, as it makes the skin and hair sticky and uncomfortable, and is not so refreshing and cleansing as the fresh-water bath they are accustomed to enjoy on land. The Peninsular and Oriental Company always, *as a matter of course*, provide their passengers with a small quantity of fresh water to cleanse the skin from the sea-water, and I have known Anglo-Indians, to whom the bath is as necessary as their food, refuse their tubs altogether when this modicum of fresh water could not be obtained. Moreover, it is very doubtful if sea water possesses any medicinal virtues superior to those of fresh water. We have no evidence that the saline or other constituents of sea-water are absorbed by the skin—a remark, by the way, which applies to all natural mineral waters when used as baths; or if we had, it is probable, from what we know of the internal administration of sea-water, they would be more harmful than beneficial to the majority of bathers. The greater buoyancy of sea-water—an advantage which it possesses over fresh water—would be of little use in the limited space which baths must necessarily occupy in London, and the temperature would be no longer constant, but would be the same as the surrounding objects. Even the freedom from catching cold which sea-water confers on children dabbling on the sea-shore would be of no avail in town.

On the whole, I am disposed to think that the advantages of mere "bathing" are much exaggerated by our countrymen. Medical men do not draw the line sufficiently clearly between the therapeutical value and the luxury of open bathing, whether in the sea, lake, or river. It is probably in a great measure to its pursuit as a luxury that the numerous sad fatalities which are recorded in every newspaper under the stereotyped heading, "Drowned," are to be attributed; but some, no doubt, are due to a mistaken idea of its great healthfulness. The benefits which sick persons may derive from the well-directed use of baths are many and great; but to the tolerably healthy—the great majority of "bathers"—the sanitary advantages are those of cleanliness, change of temperature, and, in a small degree, exposure of the body to the light and air—advantages which may be easily attained without the foolish risks to which so many expose their lives.

Your obedient servant,

Bolton-row, W., Sept. 3rd, 1878. CHAS. ROBERTS.

Climate.—The climate of Pensacola is much the same as that of New Orleans, and Darien cannot be much better. The cost of living may be calculated at about fifty per cent. more than in London. It is hardly necessary to record that the climate is not specially recommendable, particularly at the present time.

ARMY MEDICAL DEPARTMENT.

To the Editor of THE LANCET.

SIR,—I read with some interest an article in your journal of July 13th on the Army Medical Department and the Forage Question.

Now, the question of forage is one of considerable importance, as showing one's relative position. In Sydney Herbert's Warrant of 1858, under the ægis of which many young men enter the service, it was distinctly laid down that promotion to the rank of F.O. carried with it all rights and privileges of such rank. No sooner was that admirable Warrant issued than the hacking process began. So it has ever been, and what guarantee has anyone now about to enter the department that the Warrant under which he elects to serve will be left intact? I would beg to ask the writer of the article above referred to if he has ever ridden a horse supplied on "indent"? as I cannot help thinking he would not a second time make the suggestion had he "practical" experience on the subject.

We must have status and position. The authorities have surely learnt by this time that money alone will not suffice, and we cannot go back to the regimental system and bondage. Medicine must be placed in a right and proper and equal footing with other scientific branches *within* the service, or make us purely civilians.

A circular, a copy of which I enclose, has been lately distributed in this country, and has been largely approved of. It seems to me to suggest the only real and proper remedy for the existing state of things. I trust you will give it a place in your valuable journal.

Yours &c.,

September, 1878. AN OLD REGIMENTAL OFFICER.

*** We regret that we cannot afford space for a reprint of the circular, of which we have received several copies.—ED. L.

CANINE RABIES.

AT a meeting of the Dublin Town Council on the 16th inst., a report of a Committee was adopted in reference to the recent death from hydrophobia, the frequent occurrence of canine rabies, and the considerable number of apparently homeless and ownerless dogs wandering at large in the streets of that city. The Committee suggested that up to the 1st October, 1879, all dogs found at large, and not under proper control, might be seized and detained by the police, and, if not claimed by their owners and the expenses paid within five days, should be sold or destroyed.

L.K.Q.C.P.—We sympathise very much with our correspondent; but there is no use in reviving an exhausted controversy.

T. A. should consult his medical attendant.

NON-UNITED FRACTURE.

To the Editor of THE LANCET.

SIR,—The following has caused me much annoyance and embarrassment. Some of your readers may have met with a case somewhat similar, and would kindly suggest a remedy.

A middle-aged man, apparently of a sound constitution, met with a severe accident to his thigh, by which the femur along its whole shaft was literally smashed. A lacerated wound at the middle third on the outer side, but not communicating with the bone, forbad the application of a long splint. The limb was therefore put up in a M'Intyre's, with an aperture left for dressings. In the course of three weeks the wound had healed nicely. Shortly afterwards he was seized with an acute attack of rheumatism, which greatly interfered with the appliances to the limb on account of the profuse perspiration. At the end of two months it was examined. The upper and lower thirds were found to be firmly united; but at the middle the callus, if ever thrown out, was entirely absorbed, and the broken ends quite loose. Having had the non-united ends pretty roughly handled against each other, the limb was now put up in a long splint, and upon examination again at the end of seven weeks I was not a little vexed to find matters still just in a similar state. The limb was once more put up in a M'Intyre's splint, a fortnight since, with a stout copper-wire thrust in at the junction of the broken ends to induce some irritation in the parts. Whether this will have the desired effect remains to be proved. Should it be found of no avail, what is to be done?

It may be mentioned that my patient has taken repeatedly quina, iodide of potassium with sarsa, also the dilute phosphoric acid, but neither seems to agree. Having taken either for a day or two the stomach becomes deranged, the urine loaded with lithates, and therefore each has to be discontinued. The bicarbonate of potash with bitter infusion relieves both stomach and kidneys in a very marked degree, and thus he is enabled to take his food with relish, and, upon the whole, he looks tolerably well.

Yours faithfully,

September 9th, 1878. A COUNTRY SURGEON.

Alpha.—The miscarriage of the Medical Bill leaves the law where it was. Foreign degrees cannot be registered. Were the Bill to become law, the recognition or otherwise of the Heidelberg degree would be in the discretion of the Medical Council.

THE IRISH GRADUATES' ASSOCIATION.

To the Editor of THE LANCET.

SIR,—Being a member of our newly-formed Irish Graduates' Association, in due course some circulars have been forwarded to me, containing, among other matters, the names of the members, in which number that of a lady is conspicuous. Now, would it not be preferable to exclude females from our meetings, as the British Medical Association has done? I do not wish to appear ungallant; but I think, few as we are, we might manage to do without the assistance of the gentler sex in medical and surgical discussions. Indeed I am confident the feminine element introduced in this manner will never prove a source of amalgamation even among Irishmen.

Having as yet no recognised organ of our own, I have ventured to appeal to the members of the Association through the pages of THE LANCET, hoping a corner may be found in your journal for my suggestion.

I am, Sir, yours &c.,

Sept. 7th, 1878. L.R.C.S.I., &c.

*** We have received the papers referred to, but must decline to notice the Association in THE LANCET while the name of a female member is retained on the list.—ED. L.

VACCINATION IN INDIA.

FROM a report just published it appears that during 1867-77 there were 453,192 patients vaccinated, showing a very large and increasing number. This is owing to the greater exertions of the vaccinating staff to meet the ravages of small-pox in the famine camps and works of famine relief.

A Non-professional Reader.—We cannot offer an opinion. Consult a practitioner.

EXCISION OF BOTH KNEE-JOINTS.

To the Editor of THE LANCET.

SIR,—In your impression of Sept. 7th, Mr. Barron, of Sunderland, after relating his case of excision of both knee-joints, remarks: "I am not aware that there is any case on record where excision of both knee-joints has been performed on the same person." Will you kindly allow me to correct Mr. Barron's error on this point, and call his attention to the *British Medical Journal* of the 16th of February last, wherein is reported a similar case of mine, the particulars of which were read by me before one of the ordinary meetings of our Staffordshire Branch.

Yours faithfully,

Hanley, Sept. 10th, 1878. W. H. FOLKER.

480.—We think our correspondent is bound legally and morally by the document he signed. If not satisfied, he has it in his power to resign. We fail to see the discrepancy between the Schedule and the Warrant. Surely he does not mean to say he thought the note appended to the Schedule was an extract from the Warrant. We differ from him in his view of what he calls a "questionable statement."

Dr. Hutson Ford (St. Louis, Missouri, U.S.) does not state in what number the remarks referred to appeared. We have no recollection of them.

CARBOLIC ACID IN SMALL-POX.

To the Editor of THE LANCET.

SIR,—You will be good enough to accord me a small space in THE LANCET in reference to the action of carbolic acid in small-pox.

I omitted to mention in my letter whether my patient was vaccinated or not; but being reminded by Dr. Taylor, I beg therefore to say that she had three primary vaccination cicatrices on her arm, having been vaccinated in infancy, but had never been *revaccinated*. Now, most medical men hold that vaccination, to be efficacious, should be repeated at the age of twelve or fourteen years, or at least at puberty. My patient was about forty years of age, and therefore the questions arise, whether the primary vaccination still held its powerful influence in this patient at so distant a date as to cause the disease to abort, as Dr. Taylor says, or whether the good effects produced in my case were due to the action of carbolic acid or to the primary vaccination? These are questions I should like to see answered, and therefore must leave them open, as my experience is too limited to offer an opinion on so important a subject.

I am, Sir, your obedient servant,

R. LOCKHART LAWSON, M.R.C.S.E., &c.

Peckham-rye, September, 1878.

One who desires a Penal Clause draws his argument chiefly from the loose state of the law regarding registration of deaths. We agree with him that some rectification of this should be granted in a Medical Bill, if that should precede an amendment of the Registration Acts.

THE OLD MAN OF BOGOTA.

To the Editor of THE LANCET.

SIR,—The statement that has lately been going the round of the newspapers concerning the alleged age (200 years) of a citizen of Bogotà, United States of Columbia (*not* San Salvador), when allowed a prominent place in the pages of THE LANCET, calls for some notice, as such statements are eagerly seized on by the credulous, who seem ever at war with truth. As a resident of over twenty years in the above city, and with a knowledge not only of the parties named, but of the tendency of its inhabitants to accept the marvellous without the effort of verification, I, speaking within my knowledge, should judge the age of the individual in question to have been, about six years ago, between eighty and ninety. Longevity is rare in these districts, and there is no baptismal or other kind of registry in the city, so that the value of affirmative evidence in such matters is equally valid with its negation, and it must be left to your readers to choose between the probable and the miraculous.

I am, Sir, yours obediently,

W. L. DUDLEY, M.D., F.R.C.S.

Cromwell-road, S.W., Sept. 10th, 1878.

MEDICAL TITLES.

M.R.C.S. Eng. and others.—This subject needs no further discussion for its elucidation, and we cannot give space to it.

An Enquirer is right. The double qualification is required for public appointments, but not necessarily in the case of voluntary Associations.

DISLOCATION OF THE THUMB.

To the Editor of THE LANCET.

SIR,—A gentleman twelve months ago sustained a compound dislocation of the distal phalanx of the left thumb, caused by his being thrown out of a trap. He informs me that the dislocation was reduced by a surgeon half an hour after the accident, and the thumb put up on a splint. In less than six weeks the wound was completely healed. On examination at the present time, I find that he has the slightest possible power of motion at the joint, and that no bony anchylosis has taken place. Could any operation be performed for the restoration of motion to any degree? I find no reference to a similar case in the Surgical Text-books.

Yours truly,

September 11th, 1878. BETA.

Dr. Caddy.—Because the Metropolitan Board of Works chose that way of getting rid of the sewage, obtained an Act to sanction it, and saving clauses in the Public Health and other Acts in case any sanitary or other issues should hereafter arise.

West Indies.—The interval depends entirely on the personal interest possessed by the candidate, for there are very few civil medical appointments in Jamaica.

"A SUGGESTIVE CUSTOM IN DEVONSHIRE."

To the Editor of THE LANCET.

SIR,—In the volume for 1876 of *Der Gerber*, a technical journal of scientific repute, the organ of the Austrian Board of Trade Research Laboratory, in the course of a series of papers on the "Plunge-dyeing" of the finer kinds of leathers, the approach of females during the catamenial period to the dye-vats or drying-rooms is expressly mentioned among the risks to be avoided as endangering the purity of the more delicate vegetable dyes. I cannot learn that any such belief obtains in England among dyers or leather-dressers.

Yours &c.,

September, 1878. H. M. C.

W. H. (Harboro') may consult a medical practitioner with every confidence of receiving good counsel. We do not either prescribe or advise.

Inquirens.—Vol. ii. of Reynolds's System of Medicine; Dr. Wilks's Lectures on Nervous Diseases.

Suum Cuique will see that we give in the present number the information he asks for.

ERRATA.—In Dr. Dunlop's paper in THE LANCET of Sept. 7th, page 323, for "Sir W. Payne," read Sir W. *Pym*.—On page 344, for "Dr. Wollaston, of Chard," read Dr. Wollaston, of *Lyme-Regis*.

COMMUNICATIONS not noticed in the current number shall receive attention in our issue of the ensuing week.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir W. Jenner, London; Dr. Tilbury Fox, London; Mr. Fletcher, South Shields; Mr. Jackson, Somerby; Mr. Wright, Leeds; Mr. Brown, Hammersmith; Surgeon-Major Oliver, Woolwich; Mr. Forward, Axminster; Dr. Laffan, Chabel; Mr. Smithies, London; Mr. Mullan, Glasgow; Mr. Cole, Belfast; Mr. Roberts, Buckhurst-hill; Dr. Goolden, London; Dr. Thornley, Newry; Dr. W. Wylie, London; Mr. Whitcombe, Beverley; Mr. Clowes, Statham; Mr. J. Rutherford, London; Mr. Featherstonhaugh; Mr. Hawes, Dublin; Dr. G. E. Jeaffreson, London; Dr. Leonard, Providence, Rhode Island; Mr. Bloxam, London; Dr. Shapter, Exeter; Dr. Russell, Glasgow; Mr. Brown, Northallerton; Dr. Tuckwell, Oxford; Mr. Miller, Dublin; Mr. Spencer, York; Mr. Stock, Dublin; Mr. Morton, London; Dr. Reid, Glasgow; Mr. Wheatley, London; Dr. Napier, Dunbar; Mr. Phillips, London; Dr. Saunders, London; Dr. Sturges, London; Mr. Wilton, London; Mr. Wilkins, Cardiff; Dr. Gilbertson, Preston; Mr. Wilson, London; Mr. Selby, Port William; Mr. Reynolds, Brixton; Dr. Caddy, Baroda, India; Mr. Fowler, Epping; Surgeon-Major M'Dermott, Silchar, India; Surgeon-Major Oughton, Seetabaldee, India; Mr. Wheeler, London; Mr. Waters, Bombay; Dr. Scatliff, Brighton; Mr. Meadows, Hastings; Mr. T. Cooke, London; Dr. W. Johnston, Leicester; Dr. Edgar; Dr. Hime, Sheffield; Mr. Robson; Mr. J. B. Pike; Dr. Jones, Llanboyd; Dr. Maskew; Mr. Kelly; Mr. Bartlett; Dr. Madden, Dublin; Dr. Davies, Mountain Ash; Mr. Jones, Denbigh; Mr. Lewis, Brighton; Mr. Compton; Mr. Murray; Mr. Courrie; Dr. Drysdale, London; Dr. Elwis, Bristol; Mr. Laming, Arundel; Dr. Macleod, Edinburgh; Mr. F. Vacher; Mr. Jolly, Birmingham; Dr. Dickson, Worksop; Mr. H. L. Lawson; Mr. O'Hara; Dr. Tibbits, Bradford Dr. Thomas, Glasgow; Dr. Smith, Stockton; Dr. Boyes, Brighton; Mr. Whitaker; Dr. Ritchie, Edinburgh; Mr. Holmes; Mr. Morrison; Mr. Bear; Mr. Day; Dr. Dalton, New Boon; Dr. Price, Kettering; Dr. M'Leod, Calcutta; Dr. Monckton; Dr. Dudley; Mr. Ellis; Dr. Moore, Dublin; Mr. Thorpe; Mr. Cooper; Dr. Weir, Leicester; Mr. Row; Mr. Southwell; Mr. Hardord; Dr. Archer, Epping; Mr. Underhill; Mr. Ivinson; Dr. Clarke, Pewsey; Mr. Folkard, Hanley; Dr. Corfield; Dr. Tizard, Weymouth; Mr. Hughes; Dr. Longhurst; Dr. Fraser; Dr. Mosse; The Military Secretary of the India Office; One of the Candidates; A Non-professional Reader; Liverpool; B. Dawlish; X.; Students; L.R.C.S.I.; C. S. Y., Yeovil; One who desires a Penal Clause; T. A.; An Enquirer; An Old Regimental Officer; Suum Cuique Curator; F. P.; A Country Surgeon; L.R.C.P. and S. Edin.; Paterfamilias; Kent; T. A. U.; Juvenis; Medicus; M.D., Kensington; Secretary; The Registrar-General of Edinburgh; M. B.; D. T.; The Registrar of the University of London; Veritas; Physiologist; Dentistry; Climate; Chirurgus; &c. &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Simpson, Aberdeen; Mr. Brodie, Newcastle-on-Tyne; Mr. Wells, Ludlow; Mr. Young, Torquay; Mr. Musgrave, Cockermouth; Mr. Kilburn, West Auckland; Mr. Booth, Barnsley; Mr. Sers, Epperstone; Mr. Greenwood, Liverpool; Mr. Cuthbert; Mr. Barnett; Dr. Davidson, Beckington; Mr. Wilson; Dr. Torrance, Maidenhead; Mr. Howard; Mr. Maclean; Dr. Powell; Mr. Jones, Felixtowe; Mr. Harthan, Manchester; Mr. Kenyon; Mr. Williams; Dr. Crew, Higham Ferrers; Dr. Sutcliffe; Mr. Edwards; Mr. Owen, Llanberis; Dr. Watson, Scarborough; Dr. Glissan; Mr. Norris; Mr. Huish; Dr. King; Mr. Lewis; Mr. Johnston; Mr. Newington; Mr. Hodgson; J. P., Epworth; H G. H., Chatham; F.R.C.S., Sandown; Medicus, Glasgow; F. S.; B. A., Queen's-gate; M.D., Newbiggin; F. C., Chard; Beta; Ulna; X. Y. Z., Rochester; Medicus, Brixham; M. A., Leadenhall-street; Acis, Clare; Alpha, Edinburgh; K. G. M.; Paris; M. S. D.; G. N. R.; H. H. B.; Medicus, Huddersfield; P. H. G.; S. T.; Medicus, Weymouth; R. J., Wednesbury; E. O. N.; Medicus, Grimsby; P. F.; E.; Medicus, Liverpool; X.; Chemist; J. F., Pontefract; J. D.; Medicus, Driffield; Gamma; L. J.; E. J. H.; A. B.; Physician; A. P. H. B.; Medicus, Uxbridge; Xema; Medicus, Liverpool; J. N. B.; M. H. T.; A.; A. P.; M.R.C.S. Eng.; A. H. M. D.; M.R.C.S., York; Surgeon; E. C. V.; C. H. P.; J. A. C. B.; X. Y. Z.

Hastings and St. Leonard's Observer, Gravesend and Dartford Reporter, Colonies and India, Lancaster Gazette, Portsmouth Times, Freemason, Alloa Journal, Greenock Advertiser, North British Daily Mail, Alloa Advertiser, Bradford Observer, Madras Weekly Mail, Church of England Temperance Chronicle, Women's Gazette, Macclesfield Advertiser, South Times, Peterborough Standard, Sanitary Register, Bristol Mercury, &c., have been received.

METEOROLOGICAL READINGS.

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, SEPT. 19TH, 1875.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Wet Bulb	Dry Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Sep. 13	30·12	WNW	51	55	95	67	47	0·04	Fine
,, 14	30·02	N.W.	52	55	98	71	48	..	Hazy
,, 15	29·85	W.	57	61	97	68	52	..	Cloudy
,, 16	29·72	W.	53	58	97	61	51	0·14	Cloudy
,, 17	29·99	W.	56	59	99	67	52	..	Overcast
,, 18	29·65	W.	62	63	76	64	58	0·19	Raining
,, 19	29·91	W.	49	54	92	61	45	0·06	Fine

Medical Diary for the ensuing Week.

Monday, Sept. 23.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

Tuesday, Sept. 24.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Sept. 25.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, Sept. 26.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, Sept. 27.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
QUEKETT MICROSCOPICAL CLUB.—8 P.M. Dr. John Matthews, "On the History and Structure of Corals."

Saturday, Sept. 28.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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